

HAWAIIAN
ANNUAL

1918-20

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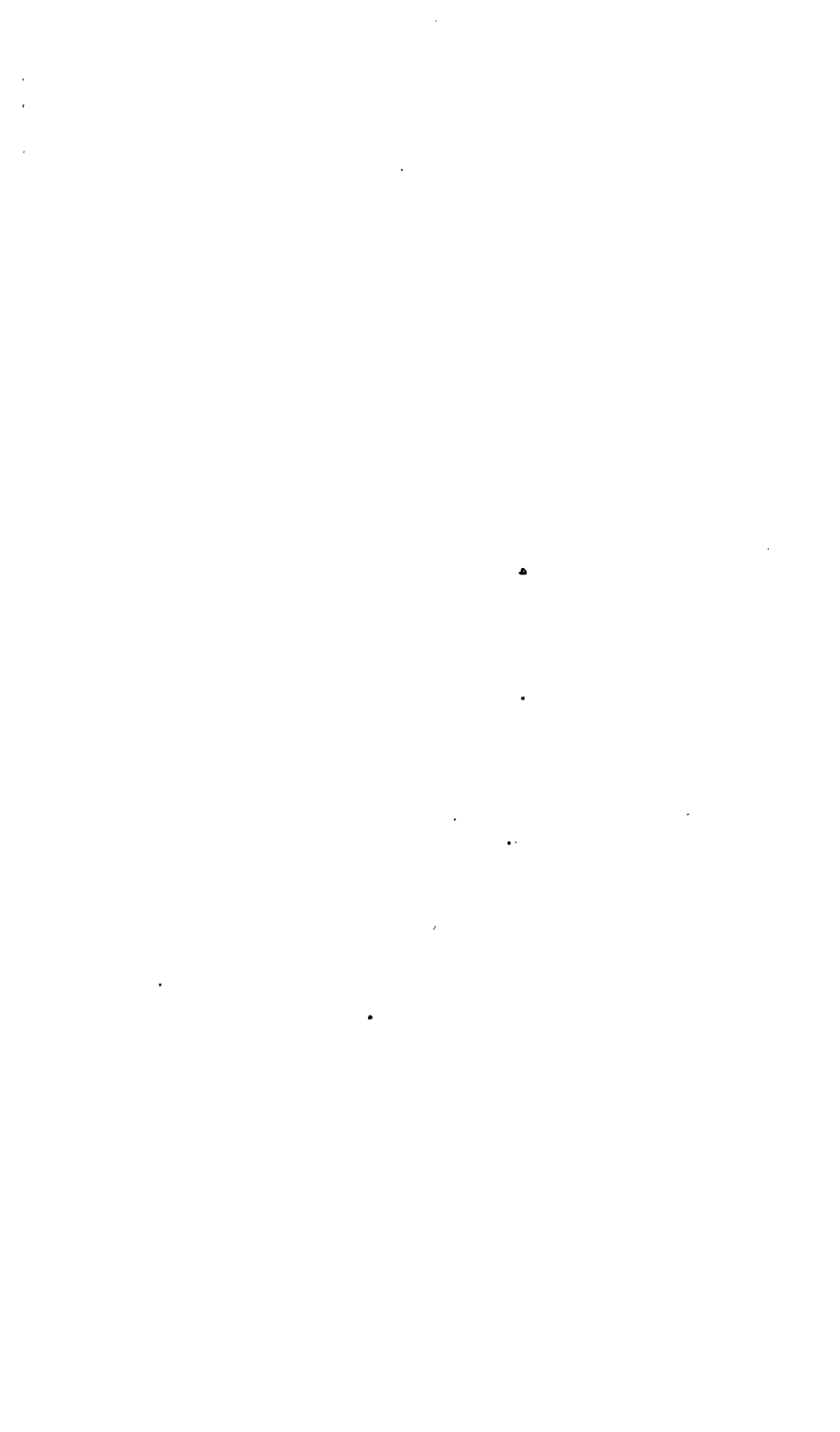
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UNIVERSITY OF MICHIGAN

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THE HAWAIIAN ANNUAL

THE REFERENCE
BOOK OF HAWAII

Issued Regularly
since 1875

1919

THOS. G. THURM

Publisher

Honolulu T. H.

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OAHU RAILWAY & LAND CO.

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HALEIWA HOTEL

On Line of Oahu Railway

HALEIWA HOTEL. — At Waialua is a beautiful Hotel, of the most modern construction and equipment, in which guests will find all possible comfort and entertainment, combined with elegance of furnishing, tropical surroundings and healthful atmosphere. The view from the Hotel embraces Sea, Mountain, and Valley in a combination not to be enjoyed elsewhere.



W. F. DILLINGHAM, President

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HAWAIIAN ALMANAC AND ANNUAL

FOR

1919

THE REFERENCE BOOK OF INFORMATION AND STATISTICS

Relating to the Territory of Hawaii, of Value to
Merchants, Tourists and Others

THOS. G. THRUM

Compiler and Publisher

Forty-Fifth Year of Publication

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HONOLULU

1918

Counting House

1919 Calendar 1919

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
JAN.	5	6	7	1	2	3	4	JULY	6	7	8	1	2	3	5
	12	13	14	15	16	17	18		13	14	15	16	17	18	19
	19	20	21	22	23	24	25		20	21	22	23	24	25	26
	26	27	28	29	30	31	..	AUG.	27	28	29	30	31	..	..
FEB.	2	3	4	5	6	7	8		3	4	5	6	7	8	9
	9	10	11	12	13	14	15		10	11	12	13	14	15	16
	16	17	18	19	20	21	22		17	18	19	20	21	22	23
	23	24	25	26	27	28	..		24	25	26	27	28	29	30
MAR.	2	3	4	5	6	7	8	SEPT.	31	..	1	2	3	4	5
	9	10	11	12	13	14	15		7	8	9	10	11	12	13
	16	17	18	19	20	21	22		14	15	16	17	18	19	20
	23	24	25	26	27	28	29		21	22	23	24	25	26	27
	30	31	..	..	..	..	..		28	29	30	..	..	..	..
APR.	6	7	8	9	10	11	12	OCT.	5	6	7	8	9	10	11
	13	14	15	16	17	18	19		12	13	14	15	16	17	18
	20	21	22	23	24	25	26		19	20	21	22	23	24	25
	27	28	29	30	..	..	..	NOV.	26	27	28	29	30	31	..
MAY	4	5	6	7	8	9	10		..	..	2	3	4	5	6
	11	12	13	14	15	16	17		9	10	11	12	13	14	15
	18	19	20	21	22	23	24		16	17	18	19	20	21	22
	25	26	27	28	29	30	31		23	24	25	26	27	28	29
	..	..	..	..	..	..	..		30	..	..	..	..	..	..
JUNE	1	2	3	4	5	6	7	DEC.	..	1	2	3	4	5	6
	8	9	10	11	12	13	14		7	8	9	10	11	12	13
	15	16	17	18	19	20	21		14	15	16	17	18	19	20
	22	23	24	25	26	27	28		21	22	23	24	25	26	27
	29	30	..	..	..	..	..		28	29	30	31	..	..	..

Thos. G. Thrum

RESEARCHER AND PUBLISHER

The Hawaiian Annual

HONOLULU, HAWAII

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HAWAIIAN ANNUAL CALENDAR FOR 1919.

Second half of the twenty-first year and first half of the twenty-second year since annexation of Hawaii with the United States.

Twenty-fourth year since the downfall of the Monarchy.

The 141st year since the discovery of the Hawaiian Islands by Captain Cook.

Holidays Observed at the Hawaiian Islands.

*New Year-----	Jan. 1	*Birthday Hawn. Republic--	July 4
Chinese New Year-----	Feb. 11	*American Anniversary ----	July 4
Lincoln's Birthday -----	Feb. 12	Labor Day (1st Monday)-----	Sept. 1
*Washington's Birthday-----	Feb. 22	*Regatta Day (3d Saturday)---	Sept. 20
*Decoration Day -----	May 30	Thanksgiving Day -----	Nov. 27
Kamehameha Day -----	June 11	*Christmas Day -----	Dec. 25

* Those distinguished by the asterisk have been established by law.

Church Days.

Epiphany -----	Jan. 6	Ascension Day -----	May 29
Ash Wednesday -----	Mch. 5	Whit Sunday -----	June 8
First Sunday in Lent-----	Mch. 9	Trinity Sunday -----	June 15
Palm Sunday -----	Apl. 13	Corpus Christi -----	June 19
Good Friday -----	Apl. 18	Advent Sunday -----	Nov. 30
Easter Sunday -----	Apl. 20	Christmas -----	Dec. 25

Eclipses in 1919.

Courtesy of J. S. Donaghho, College of Hawaii.

In 1919 there will be two eclipses of the sun, and one of the moon, as follows:

May 28, eclipse of the sun, invisible at Honolulu.

November 7, eclipse of the moon, invisible at Honolulu.

November 22, eclipse of the sun, invisible at Honolulu.

PHENOMENA.

Visible in the early evening:

July 2, conjunction of Venus and Jupiter, with Venus about one-third of the moon's diameter north.

Visible in the early morning:

June 5, conjunction of Venus and Mars, Venus south.

September 1, conjunction of Mars and Jupiter, Mars north.

September 10, conjunction of Venus and Saturn, Venus north.

October 24, conjunction of Mars and Saturn, Mars south.

The amateur observer will be able to identify these planets for some time before and after the conjunctions, by the fact that they will appear close together.

FIRST QUARTER, 1919

JANUARY				FEBRUARY				MARCH			
D.		H. M.		D.		H. M.		D.		H. M.	
1	New Moon	9.54.1 p.m.		7	First Quar.	8.22.3 a.m.		1	New Moon	0.41.4 a.m.	
8	First Quar.	0.25.2 a.m.		14	Full Moon	1.08.2 p.m.		8	First Quar.	4.44.1 p.m.	
15	Full Moon	10.14.4 p.m.		22	Last Quar.	3.17.7 p.m.		16	Full Moon.	5.11.1 a.m.	
23	Last Quar.	5.52.0 p.m.						24	Last Quar.	10.03.9 a.m.	
31	New Moon	0.37.0 p.m.						31	New Moon	11.34.9 a.m.	
Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....	Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....	Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....
		H. M.	H. M.			H. M.	H. M.			H. M.	H. M.
1	Wed..	6 38 15	30 0	1	Sat...	6 37 45	50 5	1	Sat...	6 20 56	4 5
2	Thurs	6 38 45	30 6	2	SUN..	6 37 15	51 1	2	SUN..	6 19 76	4 9
3	Fri...	6 38 65	31 3	3	Mon..	6 36 75	51 7	3	Mon..	6 18 96	5 3
4	Sat...	6 38 95	31 9	4	Tues..	6 36 35	52 3	4	Tues..	6 18 16	5 7
5	SUN..	6 39 15	32 6	5	Wed..	6 35 95	52 9	5	Wed..	6 17 36	6 1
6	Mon..	6 39 35	33 3	6	Thurs	6 35 45	53 5	6	Thurs	6 16 46	6 5
7	Tues..	6 39 55	33 9	7	Fri...	6 34 95	54 1	7	Fri...	6 15 66	6 8
8	Wed..	6 39 75	34 6	8	Sat...	6 34 45	54 7	8	Sat...	6 14 86	7 2
9	Thurs	6 39 95	35 3	9	SUN..	6 33 95	55 2	9	SUN..	6 13 96	7 6
10	Fri...	6 40 15	36 0	10	Mon..	6 33 45	55 7	10	Mon..	6 13 06	7 9
11	Sat...	6 40 25	36 7	11	Tues..	6 32 95	56 2	11	Tues..	6 12 16	8 3
12	SUN..	6 40 35	37 3	12	Wed..	6 32 35	56 7	12	Wed..	6 11 36	8 6
13	Mon..	6 40 45	38 0	13	Thurs	6 31 75	57 2	13	Thurs	6 10 46	8 9
14	Tues..	6 40 45	38 7	14	Fri...	6 31 15	57 7	14	Fri...	6 9 56	9 3
15	Wed..	6 40 45	39 4	15	Sat...	6 30 55	58 2	15	Sat...	6 8 66	9 6
16	Thurs	6 40 45	40 1	16	SUN..	6 29 95	58 7	16	SUN..	6 7 76	9 9
17	Fri...	6 40 45	40 8	17	Mon..	6 29 25	59 2	17	Mon..	6 6 86	10 2
18	Sat...	6 40 35	41 4	18	Tues..	6 28 65	59 7	18	Tues..	6 5 96	10 5
19	SUN..	6 40 35	42 1	19	Wed..	6 28 06	0 2	19	Wed..	6 4 96	10 8
20	Mon..	6 40 25	42 8	20	Thurs	6 27 36	0 7	20	Thurs	6 4 06	11 2
21	Tues..	6 40 15	43 4	21	Fri...	6 26 66	1 2	21	Fri...	6 3 16	11 5
22	Wed..	6 39 95	44 1	22	Sat...	6 26 06	1 6	22	Sat...	6 2 26	11 8
23	Thurs	6 39 85	44 8	23	SUN..	6 25 26	2 1	23	SUN..	6 1 36	12 1
24	Fri...	6 39 65	45 4	24	Mon..	6 24 56	2 5	24	Mon..	6 0 46	12 4
25	Sat...	6 39 55	46 1	25	Tues..	6 23 76	2 9	25	Tues..	5 59 56	12 8
26	SUN..	6 39 35	46 7	26	Wed..	6 22 96	3 3	26	Wed..	5 58 56	13 1
27	Mon..	6 39 05	47 4	27	Thurs	6 22 16	3 7	27	Thurs	5 57 66	13 4
28	Tues..	6 38 85	48 0	28	Fri...	6 21 36	4 1	28	Fri...	5 56 76	13 7
29	Wed..	6 38 55	48 6					29	Sat...	5 55 76	14 0
30	Thurs	6 38 15	49 2					30	SUN..	5 54 86	14 3
31	Fri...	6 37 85	49 9					31	Mon..	5 53 96	14 6

VOLCANO OF KILAUEA, ISLAND OF HAWAII.

Corrected for Deflection of the Vertical.

Area, 4.14 square miles, or 2,650 acres.
 Circumference, 41,500 feet, or 7.85 miles.
 Extreme width, 10,300 feet, or 1.95 miles.
 Extreme length, 15,500 feet, or 2.93 miles.
 Elevation, Volcano House, 4,000 feet.

SECOND QUARTER, 1919

APRIL				MAY				JUNE			
D.		H. M.		D.		H. M.		D.		H. M.	
7	First Quar.	2.08.8 a.m.		6	First Quar.	1.03.9 p.m.		5	First Quar.	1.51.9 a.m.	
14	Full Moon.	9.55.1 p.m.		14	Full Moon	2.31.3 p.m.		13	Full Moon	5.58.2 a.m.	
22	Last Quar.	0.51.1 a.m.		22	Last Quar.	11.33.9 a.m.		20	Last Quar.	7.02.9 p.m.	
29	New Moon	7.00.4 p.m.		29	New Moon	2.41.9 a.m.		27	New Moon	10.22.6 a.m.	
Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....	Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....	Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....
		H. M.	H. M.			H. M.	H. M.			H. M.	H. M.
1	Tues..	5 53 06	14 6	1	Thurs	5 29 06	25 1	1	SUN..	5 17 26	38 1
2	Wed..	5 52 16	15 2	2	Fri...	5 28 46	25 5	2	Mon..	5 17 16	38 5
3	Thurs	5 51 26	15 5	3	Sat...	5 27 86	25 9	3	Tues..	5 17 16	38 9
4	Fri...	5 50 36	15 9	4	SUN..	5 27 16	26 3	4	Wed..	5 17 06	39 3
5	Sat...	5 49 56	16 2	5	Mon..	5 26 56	26 7	5	Thurs	5 17 06	39 6
6	SUN..	5 48 66	16 5	6	Tues..	5 26 06	27 1	6	Fri...	5 17 06	40 0
7	Mon..	5 47 76	16 8	7	Wed..	5 25 46	27 5	7	Sat...	5 17 06	40 4
8	Tues..	5 46 86	17 1	8	Thurs	5 24 96	27 9	8	SUN..	5 17 06	40 8
9	Wed..	5 45 96	17 4	9	Fri...	5 24 46	28 4	9	Mon..	5 17 06	41 1
10	Thurs	5 45 06	17 7	10	Sat...	5 23 96	28 8	10	Tues..	5 17 06	41 5
11	Fri...	5 44 26	18 0	11	SUN..	5 23 56	29 2	11	Wed..	5 17 06	41 8
12	Sat...	5 43 46	18 3	12	Mon..	5 23 06	29 6	12	Thurs	5 17 16	42 1
13	SUN..	5 42 66	18 7	13	Tues..	5 22 66	30 1	13	Fri...	5 17 26	42 4
14	Mon..	5 41 76	19 0	14	Wed..	5 22 16	30 5	14	Sat...	5 17 46	42 7
15	Tues..	5 40 96	19 3	15	Thurs	5 21 76	30 9	15	SUN..	5 17 56	43 0
16	Wed..	5 40 16	19 6	16	Fri...	5 21 36	31 3	16	Mon..	5 17 76	43 3
17	Thurs	5 39 36	20 0	17	Sat...	5 21 06	31 8	17	Tues..	5 17 96	43 5
18	Fri...	5 38 56	20 3	18	SUN..	5 20 66	32 2	18	Wed..	5 18 06	43 8
19	Sat...	5 37 66	20 7	19	Mon..	5 20 26	32 6	19	Thurs	5 18 26	44 1
20	SUN..	5 36 86	21 1	20	Tues..	5 19 96	33 0	20	Fri...	5 18 36	44 3
21	Mon..	5 36 06	21 4	21	Wed..	5 19 66	33 5	21	Sat...	5 18 56	44 5
22	Tues..	5 35 26	21 8	22	Thurs	5 19 36	33 9	22	SUN..	5 18 76	44 7
23	Wed..	5 34 56	22 1	23	Fri...	5 19 06	34 4	23	Mon..	5 19 06	44 9
24	Thurs	5 33 86	22 5	24	Sat...	5 18 76	34 8	24	Tues..	5 19 26	45 1
25	Fri...	5 33 16	22 9	25	SUN..	5 18 46	35 3	25	Wed..	5 19 56	45 2
26	Sat...	5 32 46	23 2	26	Mon..	5 18 16	35 7	26	Thurs	5 19 86	45 3
27	SUN..	5 31 76	23 6	27	Tues..	5 17 96	36 1	27	Fri...	5 20 16	45 4
28	Mon..	5 31 06	24 0	28	Wed..	5 17 86	36 5	28	Sat...	5 20 46	45 5
29	Tues..	5 30 36	24 4	29	Thurs	5 17 66	36 9	29	SUN..	5 20 76	45 7
30	Wed..	5 29 76	24 7	30	Fri...	5 17 46	37 3	30	Mon..	5 21 06	45 8
				31	Sat...	5 17 36	37 7				

MOKUAWEOWEO.

The Summit Crater of Mauna Loa, Island of Hawaii.

Area, 3.70 square miles, or 2,370 acres.

Circumference, 50,000 feet, or 9.47 miles.

Length, 19,500 feet, or 3.7 miles.

Width, 9,20 feet, or 1.74 miles. Elevation of summit, 13,675 feet.

THIRD QUARTER, 1919

JULY				AUGUST				SEPTEMBER			
D.	H. M.			D.	H. M.			D.	H. M.		
4	First Quar.	4.47.2	p.m.	3	First Quar.	9.41.5	a.m.	2	First Quar.	3.51.9	a.m.
12	Full Moon	7.32.2	p.m.	11	Full Moon	7.09.5	a.m.	9	Full Moon	5.24.3	p.m.
19	Last Quar.	9.33.0	a.m.	18	Last Quar.	8.26.1	a.m.	16	Last Quar.	11.01.7	a.m.
26	New Moon	6.51.4	p.m.	25	New Moon	5.07.1	a.m.	23	New Moon	6.03.9	p.m.
Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....	Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....	Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....
		H. M.	H. M.			H. M.	H. M.			H. M.	H. M.
1	Tues..	5 21 36	45 8	1	Fri...	5 33 26	38 7	1	Mon...	5 43 46	15 9
2	Wed...	5 21 66	45 9	2	Sat...	5 33 66	38 1	2	Tues...	5 43 66	15 0
3	Thurs	5 22 06	45 9	3	SUN..	5 34 06	37 6	3	Wed...	5 43 96	14 1
4	Fri...	5 22 36	45 9	4	Mon...	5 34 36	37 0	4	Thurs	5 44 16	13 2
5	Sat...	5 22 76	45 8	5	Tues...	5 34 76	36 4	5	Fri...	5 44 46	12 3
6	SUN..	5 23 06	45 8	6	Wed...	5 35 16	35 9	6	Sat...	5 44 66	11 4
7	Mon...	5 23 46	45 8	7	Thurs	5 35 56	35 3	7	SUN..	5 44 96	10 4
8	Tues...	5 23 76	45 7	8	Fri...	5 35 86	34 6	8	Mon...	5 45 26	9 5
9	Wed...	5 24 16	45 6	9	Sat...	5 36 26	34 0	9	Tues...	5 45 46	8 5
10	Thurs	5 24 46	45 6	10	SUN..	5 36 66	33 3	10	Wed...	5 45 76	7 6
11	Fri...	5 24 86	45 5	11	Mon...	5 36 96	32 7	11	Thurs	5 46 06	6 6
12	Sat...	5 25 26	45 3	12	Tues...	5 37 26	32 0	12	Fri...	5 46 26	5 7
13	SUN..	5 25 66	45 2	13	Wed...	5 37 66	31 3	13	Sat...	5 46 56	4 7
14	Mon...	5 26 16	45 0	14	Thurs	5 37 96	30 6	14	SUN..	5 46 76	3 7
15	Tues...	5 26 56	44 8	15	Fri...	5 38 36	29 9	15	Mon...	5 46 96	2 8
16	Wed...	5 26 96	44 6	16	Sat...	5 38 66	29 2	16	Tues...	5 47 26	1 8
17	Thurs	5 27 36	44 4	17	SUN..	5 38 96	28 5	17	Wed...	5 47 46	0 9
18	Fri...	5 27 76	44 1	18	Mon...	5 39 26	27 7	18	Thurs	5 47 75	59 9
19	Sat...	5 28 16	43 9	19	Tues...	5 39 56	26 9	19	Fri...	5 47 95	59 0
20	SUN..	5 28 56	43 6	20	Wed...	5 39 96	26 1	20	Sat...	5 48 25	58 0
21	Mon...	5 28 96	43 3	21	Thurs	5 40 26	25 3	21	SUN..	5 48 55	57 1
22	Tues...	5 29 36	42 9	22	Fri...	5 40 56	24 5	22	Mon...	5 48 75	56 1
23	Wed...	5 29 76	42 6	23	Sat...	5 40 86	23 7	23	Tues...	5 49 05	55 1
24	Thurs	5 30 16	42 2	24	SUN..	5 41 16	22 9	24	Wed...	5 49 25	54 2
25	Fri...	5 30 56	41 8	25	Mon...	5 41 46	22 0	25	Thurs	5 49 55	53 2
26	Sat...	5 30 96	41 4	26	Tues...	5 41 76	21 2	26	Fri...	5 49 85	52 3
27	SUN..	5 31 36	41 0	27	Wed...	5 41 96	20 3	27	Sat...	5 50 05	51 4
28	Mon...	5 31 76	40 6	28	Thurs	5 42 26	19 4	28	SUN..	5 50 35	50 4
29	Tues...	5 32 16	40 1	29	Fri...	5 42 56	18 6	29	Mon...	5 50 65	49 5
30	Wed...	5 32 46	39 7	30	Sat...	5 42 86	17 7	30	Tues...	5 50 95	48 6
31	Thurs	5 32 86	39 2	31	SUN..	5 43 16	16 8				

IAO VALLEY, ISLAND OF MAUI.

Length (from Walluku), about 5 miles.

Width of Valley, 2 miles.

Depth, near head, 4,000 feet.

Elevation of Puu Kukui, above head of Valley, 5,700 feet.

Elevation of Crater of Eke, above Waihee Valley, 4,500 feet.

FOURTH QUARTER, 1919.

OCTOBER					NOVEMBER					DECEMBER					
D.	H. M.				D.	H. M.				D.	H. M.				
1	First Quar.	10.07.3	p.m.		7	Full Moon	1.05.2	p.m.		6	Full Moon	11.33.5	p.m.		
9	Full Moon	3.08.6	a.m.		14	Last Quar.	5.10.5	a.m.		13	Last Quar.	7.32.4	p.m.		
15	Last Quar.	6.34.7	p.m.		22	New Moon	4.49.7	a.m.		21	New Moon	2.25.2	p.m.		
23	New Moon	10.09.5	a.m.		30	First Quar.	6.16.9	a.m.		29	First Quar.	6.55.0	p.m.		
31	First Quar.	3.13.2	p.m.												
Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....		Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....		Day of Mo...	Day of Wk...	Sun Rises....	Sun Sets.....		
		H. M.	H. M.				H. M.	H. M.				H. M.	H. M.		
1	Wed..	5 51 25	47 7	1	Sat....	6 3 25	24 0	1	Mon..	6 21 45	17 3				
2	Thurs	5 51 55	46 7	2	SUN.	6 3 75	23 5	2	Tues.	6 22 05	17 4				
3	Fri....	5 51 85	45 8	3	Mon..	6 4 25	23 0	3	Wed..	6 22 75	17 5				
4	Sat....	5 52 15	44 9	4	Tues.	6 4 75	22 5	4	Thurs	6 23 35	17 7				
5	SUN.	5 52 45	44 0	5	Wed..	6 5 35	22 0	5	Fri....	6 24 05	17 8				
6	Mon..	5 52 75	43 1	6	Thurs	6 5 85	21 6	6	Sat....	6 24 65	18 0				
7	Tues.	5 53 05	42 2	7	Fri....	6 6 45	21 1	7	SUN.	6 25 35	18 3				
8	Wed..	5 53 35	41 3	8	Sat....	6 6 95	20 7	8	Mon..	6 25 95	18 6				
9	Thurs	5 53 75	40 5	9	SUN.	6 7 55	20 3	9	Tues.	6 26 55	18 9				
10	Fri....	5 54 05	39 6	10	Mon..	6 8 15	20 0	10	Wed..	6 27 15	19 2				
11	Sat....	5 54 45	38 8	11	Tues.	6 8 75	19 6	11	Thurs	6 27 75	19 5				
12	SUN.	5 54 75	38 0	12	Wed..	6 9 35	19 3	12	Fri ...	6 28 35	19 9				
13	Mon..	5 55 15	37 1	13	Thurs	6 9 95	19 0	13	Sat....	6 28 95	20 2				
14	Tues.	5 55 45	36 3	14	Fri....	6 10 55	18 6	14	SUN.	6 29 55	20 6				
15	Wed..	5 55 85	35 5	15	Sat....	6 11 25	18 4	15	Mon..	6 30 15	20 9				
16	Thurs	5 56 15	34 7	16	SUN.	6 11 85	18 1	16	Tues.	6 30 75	21 3				
17	Fri....	5 56 55	33 9	17	Mon..	6 12 45	17 9	17	Wed..	6 31 25	21 8				
18	Sat....	5 56 95	33 2	18	Tues.	6 13 05	17 6	18	Thurs	6 31 85	22 2				
19	SUN.	5 57 35	32 4	19	Wed..	6 13 65	17 4	19	Fri....	6 32 35	22 7				
20	Mon..	5 57 65	31 6	20	Thurs	6 14 25	17 3	20	Sat....	6 32 85	23 1				
21	Tues.	5 58 15	30 9	21	Fri....	6 14 95	17 2	21	SUN.	6 33 35	23 6				
22	Wed..	5 58 55	30 2	22	Sat....	6 15 55	17 1	22	Mon..	6 33 85	24 1				
23	Thurs	5 58 95	29 5	23	SUN.	6 16 25	17 0	23	Tues.	6 34 45	24 7				
24	Fri....	5 59 45	28 8	24	Mon..	6 16 85	17 0	24	Wed..	6 34 95	25 2				
25	Sat....	5 59 85	28 2	25	Tues.	6 17 45	17 0	25	Thurs	6 35 35	25 7				
26	SUN.	6 0 35	27 5	26	Wed..	6 18 15	17 0	26	Fri....	6 35 85	26 3				
27	Mon..	6 0 85	26 9	27	Thurs	6 18 75	17 0	27	Sat....	6 36 35	26 9				
28	Tues.	6 1 35	26 3	28	Fri....	6 19 45	17 0	28	SUN.	6 36 65	27 5				
29	Wed..	6 1 75	25 7	29	Sat....	6 20 05	17 1	29	Mon..	6 36 95	28 1				
30	Thurs	6 2 25	25 1	30	SUN.	6 20 75	17 2	30	Tues.	6 37 35	28 7				
31	Fri....	6 2 75	24 5						31	Wed..	6 37 55	29 3			

HALEAKALA, ISLAND OF MAUI.

The great Crater of Maui, the largest in the world.

Area, 19 square miles, or 12,160 acres.

Circumference, 105,600 feet, or 20 miles.

Extreme width, 2.37 miles.

Extreme length, 39,500 feet, or 7.48 miles.

Elevation to summit, 10,032 feet.

Elevation of principal cones in crater, 8,032 and 1,572 feet.

Elevation of cave in floor of crater, 7,380 feet.

INTER-ISLAND DISTANCES BY SEA IN SEA MILES.

AROUND OAHU FROM HONOLULU—ESPLANADE WHARF TO

	Miles.		Miles.
Bell Buoy	1¼	Pearl River Bar.....	6
Diamond Head	5	Barber's Point	15
Koko Head	12	Waiānae Anchorage	26
Makapuu Point	16	Kaena Point, N. W. of Oahu....	36
Mokapu	27	Waiālua Anchorage	46
Kahuku North Point.....	48	Kahuku N. Pt., Oahu, via Kaena.	58

HONOLULU TO

Lae o ka Laau, S. W. Pt. Molokai	35	Mahukona, Hawaii.....	134
Kalaupapa, Leper Settlement..	52	Kawaihae, "	144
West Point of Lanai.....	50	Kealahou, " (direct)	157
Lahaina, Maui.....	72	S. W. Pt. "	233
Kahului, "	90	Punaluu, "	250
Hana, "	128	Hilo, " (direct)	192
Maalaea, "	86	" " (windward).....	206
Makena, "	96	" " (via Kawaihae).....	230

HONOLULU TO

Nawiliwili, Kauai.....	98	Hanalei, Kauai	125
Koloa, "	102	Niihau	144
Waimea, "	120		

LAHAINA, MAUI, TO

Kaluaaha, Molokai	17	Maalaea, Maui	12
Lanai	9	Makena, Maui	18

KAWAIHAE, HAWAII, TO

Mahukona, Hawaii	10	Hilo, Hawaii	85
Waipio, Hawaii	37	Lae o ka Mano, Hawaii.....	20
Honokaa, Hawaii	45	Kailua, Hawaii	34
Laupahoehoe, Hawaii	62	Kealahou, Hawaii	44

HILO, HAWAII, TO

East Point of Hawaii.....	20	Punaluu, Hawaii	70
Keauhou, Kau, Hawaii.....	50	Kaualuu, Hawaii	80
North Point of Hawaii.....	62	South Point of Hawaii.....	85

WIDTH OF CHANNELS.

Oahu and Molokai.....	23	Maui and Lanai.....	7
Diamond Head to S. W. Point of Molokai	30	Maui and Kahoolawe.....	6
Molokai and Lanai.....	7	Hawaii and Maui.....	26
Molokai and Maui.....	8	Kauai and Oahu.....	63
		Niihau and Kauai.....	15

OCEAN DISTANCES.

HONOLULU TO

San Francisco	2100	Auckland	3810
San Diego	2260	Sydney	4410
Portland, Or.	2360	Hongkong	4920
Brito, Nicaragua	4200	Yokohama	3400
Panama	4720	Guam	3300
Tahiti	2440	Manila, via N. E. Cape.....	4890
Samoa	2290	Victoria, B. C.....	2460
Fiji	2700	Midway Islands	1200

OVERLAND DISTANCES.

ISLAND OF OAHU.

HONOLULU POST-OFFICE TO

	Miles.		Miles.	Inter.
Bishop's corner (Waikiki).....	3.2	Punaluu	28.4	2.0
Waikiki Villa	3.6	Hauula	31.4	3.0
Diamond Head	5.9	Laie	34.4	3.0
Kaalawai	6.0	Kahuku Mill	37.2	2.8
	Miles. Inter.	Kahuku Ranch	40.0	2.8
Thomas Square	1.0			
Pawaa corners	2.0	Moanalua	3.4	
Kamoiilili	3.3	Kalauao	7.4	4.0
Kaimuki Hill Reservoir	5.0	Ewa Church	10.2	2.8
Waialae	6.2	Kipapa	13.6	3.4
Niu	8.8	Kaukonahua	20.0	6.4
Koko Head	11.8	Leilehua	20.0	
Makapuu	14.8	Waialua	28.0	8.0
Waimanalo	20.8	Waimea	32.4	4.4
Waimanalo, via Pali... ..	12.0	Kahuku Ranch	39.4	7.0
Nuuanu Bridge	1.1			
Mausoleum	1.5	Ewa Church	10.2	
Electric Reservoir	2.7	Waipio (Brown's)	11.2	1.0
Luakaha	4.3	Hoaeae (Robinson's)... ..	13.5	2.3
Nuuanu Dam	5.0	Barber's Point, L. H... ..	21.5	8.0
Pali	6.6	Nanakuli	23.5	2.0
Kaneohe	11.9	Waianae Plantation	29.9	6.4
Waiahole	18.9	Kahanahaiki	36.9	7.0
Kualoa	21.9	Kaena Point	42.0	5.1
Kahana	26.4	Waialua to Kaena Pt... ..	12.0	

ISLAND OF HAWAII.

SOUTH KOHALA.—WAIMEA COURT HOUSE, TO

	Miles.	Inter.		Miles.	Inter.
Hamakua boundary ...	4.5	..	Hilo, via Humuula Stn..	54.0	25.0
Kukuihaele Mill	11.0	6.5	Keamuku Sheep Stn...	14.0	..
Mana	7.7	..	Napuu	22.0	8.0
Hanaipoe	15.0	7.3	Keawewai	8.0	..
Keanakolu	24.0	9.0	Waika	11.0	3.0
Puakala	34.0	10.0	Kahuwa	13.0	2.0
Laumaia	36.5	2.5	Puuhue	17.0	4.0
Auwaiakewa	12.5	..	Kohala Court House...	22.0	5.0
Humuula Sheep Sation.	29.0	16.5	Mahukona	22.0	..
via Laumaia ..	47.5	..	Puako	12.0	..

NORTH KOHALA.—FOREIGN CHURCH, KOHALA, TO

	Miles.		Miles.
Edge of Pololu Gulch.....	4.00	Union Mill	2.25
Niulii Mill	2.80	Union Mill R. R. Station.....	3.25
Halawa Mill	1.65	Honomakau	2.55
Hapuu Landing	2.15	Hind's, Hawi	3.25
Kohala Mill	.50	Hawi R. R. Station.....	4.25
Kohala Mill Landing	1.50	Honoipu	7.25
Native Church	1.00	Mahukona	10.50
		Puuhue Ranch	7.25

NORTH KOHALA.—ON MAIN ROAD, MAHUKONA TO

	Miles.	Inter.		Miles.	Inter.
Hind's Mill	7.0	..	Wight's Corner	11.5	1.1
Union Mill Corner.....	8.0	1.0	Niulii Corner	12.8	1.3
Court House	9.2	1.2	Pololu Edge of Gulch...	14.5	1.7
Bond's Corner	9.7	0.5	Puu Hue	5.0	..
Kohala Mill Corner....	10.4	0.7			

SOUTH KOHALA.—KAWAIHAE TO

	Miles.	Inter.		Miles.
Puu Ainako	4.4	..	Mana, Parker's	19.5
Puuiki	7.7	3.3	Keawewai	6.0
Wa'aka, Catholic Ch... ..	9.5	1.8	Puuhue Ranch	10.0
Puuopelu, Parker's	10.8	1.3	Kohala Court House	15.0
Waimea Court House.....	11.8	1.0	Mahukona	11.0
Waimea Church	12.2	0.4	Napuu	20.0
Kukuihaele Church	22.1	9.9	Puako	5.0

KONA.—KEALAKEKUA TO

Keauhou	6.0	..	Kawaihae	42.0	4.6
Holualoa	9.6	3.6	Honaunau	4.0	..
Kailua	12.0	2.4	Hookena	7.7	3.7
Kaloko	16.0	4.0	Olelomoana	15.2	7.5
Makalawena	19.6	3.6	Hoopulua	21.6	6.4
Kiholo	27.6	8.0	Boundary of Kau.....	24.8	3.2
Ke Au a Lono bound'ry.	31.6	4.0	Flow of '87.....	32.0	7.2
Puako	37.4	5.8	Kahuku Ranch	36.5	4.5

KAU.—VOLCANO HOUSE TO

Half-way House	13.0	..	Honuapo	32.6	5.0
Kapapala	18.0	5.0	Naalehu	35.6	3.0
Pahala	23.0	5.0	Waiohinu	37.1	1.5
Punaluu	27.6	4.6	Kahuku Ranch	43.1	6.0

PUNA.—HILO COURT HOUSE TO

	Miles.		Miles.
Keaau, Forks of Road.....	9.0	Kaimu	32.0
Pahoa	20.0	Kalapana	33.0
Pohoiki	28.0	Keauhou	50.0
Kapoho (Lyman's)	32.0	Panau	40.0
Opihikao	31.0	Volcano House via Panau...	56.0
Kamaili	26.0	Sand Hills, Naawale, old road.	18.5
Kamaili Beach	29.0	Kapoho, old road	22.0

TO VOLCANO.—HILO TO

Shipman's	1.7	Mountain View	16.8
Edge of Woods	4.1	Mason's	17.5
Coconut Grove	8.0	Hitchcock's	23.5
Branch Road to Puna.....	9.0	Cattle Pen	24.7
Furneaux's	13.2	Volcano House	31.0

THROUGH HILO DISTRICT TO

Honolii Bridge	2.5	Honohina Church	17.8
Papaikou Office	4.7	Waikaumalo Bridge	18.8
Onomea Church	6.9	Pohakupuka Bridge	21.0
Kaupakuea Cross Road	10.7	Maulua Gulch	22.0
Kolekole Bridge	14.3	Kaiwilahilahi Bridge	24.0
Hakalau, east edge gulch.....	15.0	Lydgate's House	26.1
Umauma Bridge	16.0	Laupahoehoe Church	26.7

THROUGH HAMAKUA.—LAUPAHOEHOE CHURCH TO

	Miles.		Miles.
Bottom Kawalii Gulch.....	2.0	Kuaikalua Gulch	22.0
Ookala, Manager's House.....	4.0	Kapulena Church	23.9
Kealakaha Gulch	6.0	Waipanihua	24.3
Kukaiiau Gulch	8.0	Stream at Kukuihaele	26.0
Horner's	8.5	Edge Waipio	26.5
Catholic Church, Kainehe.....	9.0	Bottom Waipio	27.0
Notley's, Paauilo	10.5	Waimanu (approximate)	32.5
Kaumoalii Bridge	12.5	Kukuihaele to Waimea (approximate)	10.5
Bottom Kalopa Gulch.....	14.0	Gov't. Road to Hamakua Mill..	1.5
Wm. Horner's, Paauhau.....	15.2	Gov't. Road to Paauhau Mill...	1.0
Paauhau Church	16.3	Gov't. Road to Pacific Sugar Mill, Kukuihaele	0.7
Holmes' Store, Honokaa.....	18.0		
Honokaia Church	20.5		

ISLAND OF MAUI.

KAHULUI TO

	Miles.	Inter.		Miles.	Inter.
Spreckelsville	4.0	..	Paia P. O.....	7.2	..
Paia P. O.....	7.2	3.2	Makawao Court House.....	11.6	4.4
Hamakuapoko Mill	9.2	2.0	Olinda	18.5	6.9
Haiku P. O.....	11.0	1.8	Haleakala, edge Crater.....	26.6	8.1
Halehaku	17.2	6.2	Haleakala Summit	28.6	2.0
Huelo School	20.2	3.0			
Keanae P. O.....	35.5	15.3	Maalaea	10.3	..
Nahiku Landing	49.9	14.4	End of Mountain Road.....	15.8	5.5
Ulaino School	49.2	.7	Olowalu	19.9	4.1
Hana P. O.....	55.6	6.4	Lahaina Court House.....	25.5	5.6
Hamoā	58.2	2.6			
Wailua	62.6	4.4	Waiehu	6.4	..
Kipahulu Mill	66.2	3.6	Waihee	7.3	0.9
Mokulau	71.8	5.6	Kahakuloa	16.3	9.0
Nuu	77.0	5.2	Honokohau	23.0	6.7
			Honolua	27.0	4.0
Wailuku	3.8	..	Napili	29.8	2.8
Waikapu	5.9	2.1	Honokawai	33.5	3.7
Maalaea	10.3	4.4	Lahaina Court House.....	39.0	5.5
Kihei	12.6	2.3			
Kalepolepo	13.9	1.3	MAKENA TO		
Ulupalakua	23.6	9.7	Ulupalakua	3.5	..
Kanaio	26.8	3.2	Kamaole	7.3	3.8
Pico's	33.8	7.0	Waiakoa	13.0	5.7
Nuu	40.6	6.8	Makawao P. O.....	20.8	7.8
			Makawao Court House.....	23.0	2.2

ISLAND OF KAUAI.

NAWILIWILI TO

	Miles.	Inter.		Miles.	Inter.
Koloa	11.0	..	Wailua River	7.7	4.4
Lawai	13.8	2.8	Kealia	11.9	4.2
Hanapepe	20.0	6.2	Anahola	15.7	3.8
Waimea	27.1	7.1	Kilauea	23.6	7.9
Waiawa	31.5	4.4	Kalihiwai	26.6	3.0
Nuololo	44.8	13.3	Hanalei	31.8	5.2
Hanamaulu	3.3	..	Wainiha	34.8	3.0
			Nuololo (no road)	47.0	12.2

ISLAND OF MOLOKAI.

KAUNAKAKAI TO

	Miles.		Miles.
Meyer's, Kalae	5.0	Pukoo	15.0
Kalaupapa	9.0	Halawa	25.0
Kamalo	9.0	Ka Lae o ka Laau.....	19.0
Kaluaaha	13.5		

OAHU RAILWAY DISTANCES.—FROM HONOLULU DEPOT TO

	Miles.		Miles.
Puuloa	6.0	Gilbert	23.0
Aiea	9.0	Nanakuli	27.0
Kalauao	10.0	Waianae	33.0
Waiau	11.0	Makaha	35.0
Pearl City	12.0	Makua	41.0
Waipio	14.0	Kawaihapai	50.0
Waipahu	14.0	Mokuleia	53.0
Leilehua	27.0	Puuiki	55.0
Wahiawa	25.0	Waialua	56.0
Hoaeae	15.0	Haleiwa Hotel	56.0
Honouliuli	16.0	Waimea	62.0
Ewa Mill	18.0	Kahuku	71.0

Revised Areas and Coast Line Distances, Hawaiian Islands.

Prepared by R. D. King, Survey Department.

Courtesy Walter E. Wall, Surveyor, Terr. Hawaii.

Islands	Popltn. in 1910	Miles Square	Acres Area	Coast Line in Miles	Altitude in Feet
Hawaii	55,382	4,015.6	2,570,000	297	13,825
Oahu	81,993	598.0	382,720	177	4,030
Maui	28,623	728.1	466,000	146	10,032
Kauai	23,744	546.9	350,000	106	5,170
Molokai	1,791	260.9	167,000	100	4,958
Lanai	131	139.5	89,305	53	3,400
Niihau	208	72.8	46,575	48	1,300
Kahoolawe	2	44.2	28,260	30	1,427
Midway	35	.....	.....	...	43
	191,909	6,406.0	4,099,860	957	

Seating Capacity of Principal Churches, Halls and Places of
Amusement—Honolulu.

Roman Catholic Cathedral, Fort street.....	1,500
Kawaiahao Church (Native), King street.....	1,000
Central Union Church, Beretania street.....	850
St. Andrew's Cathedral (Episcopal), Emma street.....	800
The Bijou (vaudeville).....	1,600
Ye Liberty Theater.....	1,600
Empire Theater (moving pictures).....	930
Y. M. C. A. game hall.....	850
Mission Memorial Auditorium	600

Total Population by Districts and Islands — Comparative, 1900 and 1910.

HAWAII	1900	1910	OAHU	1900	1910
Hilo	19,785	22,545	Honolulu	39,306	52,183
Puna	5,128	6,834	Ewa	9,689	14,627
Kau	3,854	4,078	Waianae	1,008	1,958
North Kona	3,819	3,377	Waialua	3,285	6,770
South Kona	2,372	3,191	Koolauloa	2,372	3,204
North Kohala	4,366	5,398	Koolaupoko	2,844	3,251
South Kohala	600	922			
Hamakua	6,919	9,037		58,504	81,993
	47,843	55,382	Midway .....	.....	35
MAUI			KAUAI		
Lahaina	4,352	4,787	Waimea	5,714	7,987
Wailuku	7,953	11,742	Niihau	172	208
Hana	5,276	3,241	Koloa	4,564	5,769
Makawao	7,236	8,855	Kawaihau	3,220	2,580
	24,797	28,625	Hanalei	2,630	2,457
Molokai	3,123	1,791	Lihue	4,434	4,951
Lanai .....	.....	131			
			Total whole group	154,001	191,909

Population in 1910 by Age, Groups, Sex and Race.

COLOR OR RACE	Under 21 yrs.		21 yrs. & over.		All ages.		
	Male	Female	Male	Female	Male	Female	Total
Hawaiian	5,513	5,404	7,926	7,198	13,439	12,602	26,041
Caucasian-Hawn.	2,956	2,813	1,482	1,521	4,438	4,334	8,772
Asiatic-Hawn.	1,363	1,391	449	531	1,812	1,922	3,734
Portuguese	6,599	6,508	4,974	4,222	11,573	10,730	22,303
Porto Rican	1,315	1,216	1,563	796	2,878	2,012	4,890
Spanish	610	569	468	343	1,078	912	1,990
Other Caucasian..	2,359	2,244	6,896	3,368	9,255	5,612	14,867
Chinese	3,453	2,930	13,695	1,596	17,148	4,526	21,674
Japanese	12,989	11,016	41,794	13,875	54,783	24,891	79,674
Korean	400	306	3,531	296	3,931	602	4,533
Black and Mulatto	191	196	224	84	415	280	695
All Other	1,355	245	994	142	2,349	387	2,736
Total	39,103	34,838	83,996	33,972	123,099	68,810	191,909

Population of Honolulu, various census periods.

1890	22,907	1896	29,926
1900	39,300	1910	52,183

Population of Honolulu and Hilo by Race and Sex, 1910.

From Tables of the Bureau of Census.

Race	Honolulu		Hilo	
	Male	Female	Male	Female
Hawaiian	3,969	3,941	369	295
Caucasian-Hawaiian	2,000	2,233	218	200
Asiatic-Hawaiian	653	727	98	122
Portuguese	3,042	3,105	552	586
Porto Rican.....	210	177	63	46
Spanish	141	117	37	30
Other Caucasian.....	5,627	3,573	382	295
Chinese	6,948	2,626	335	100
Japanese	7,659	4,434	1,699	1,080
Korean	352	108	26	1
Filipino	68	19	66	10
Negro	179	148	6	.....
All other	66	61	15	14
Total.....	30,914	21,269	3,866	2,879

**Comparative Table of Population, Hawaiian Islands—
Census Periods 1860-1910.**

Islands	1860	1866	1872	1878	1884	1890	1896	1900	1910
Hawaii..	21,481	19,808	16,001	17,034	24,994	26,754	3,285	46,943	55,382
Maui....	16,400	14,035	12,334	12,109	15,970	17,357	17,726	24,797	28,623
Oahu....	21,275	19,799	20,671	29,236	28,068	31,194	40,205	58,504	81,993
Kauai...	6,487	6,299	4,961	5,634	*8,935	11,643	15,228	20,562	23,744
Molokai..	2,864	2,299	2,349	2,581	} 2614	2,652	2,307	2,504	1,791
Lanai...	646	394	348	214		174	105	619	131
Niihau...	647	325	233	177	.....	216	164	172	208
Kahoolawe.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Midway..	.....	.....	.....	.....	.....	.....	.....	.....	35
Total..	69,800	62,959	56,897	57,985	80,578	89,900	109,020	154,001	191,909
All Foreigners	2,716	4,194	5,366	10,477	36,346	49,368	69,516	116,366	153,362
Hawaiians.....	67,084	58,765	51,531	47,508	44,228	40,622	39,504	37,635	35,51

For table of Elevations of principal localities throughout the islands, see ANNUALS of 1915 and earlier.

For export values Pineapple products, 1911 to 1917, see ANNUAL for 1918, inset table at page 46.

Population by Race and Sex, 1910, and per cent of change since 1900.

RACES	Total Populat'n	Native Born	Foreign Born	Males	Females	% Change
Hawaiian	26,041	26,041	.....	13,439	12,602	12.58 dec
Caucas'n-Hawn.	8,772	8,772	.....	4,448	4,334	} 59.35 inc
Asiatic-Hawn.	3,734	3,734	.....	1,812	1,922	
Portuguese	22,303	13,766	8,537	11,573	10,730	42.28 "
Spanish	1,990	357	1,633	1,078	912	new
Porto Rican.....	4,890	4,830	.....	2,878	2,012	"
Other Caucas'n.....	14,867	9,917	4,950	9,255	5,612	40.56 inc
Chinese	21,674	7,195	14,479	17,148	4,526	15.87 dec
Japanese	79,674	19,889	59,785	54,783	24,891	30.37 inc
Korean	4,533	362	4,171	3,931	602	} 146.03 "
Black and Mulatto..	695	602	93	415	280	
All others	2,736	2,632	104	2,349	387	
Total.....	191,909	98,157	93,752	123,099	68,810	24.62 ^{Net} inc.

Illiterates in the Population Territory of Hawaii, 10 Years of Age and Over, Census of 1910.

Race	Per cent.	Race	Per cent.
All races	26.8	Spanish	49.6
Hawaiian	4.7	Other Caucasian	3.5
Caucasian-Hawaiian	1.3	Chinese	32.3
Asiatic-Hawaiian	1.8	Japanese	35.0
Portuguese	35.4	Korean	25.9
Porto Rican	73.2	Filipino and all other.....	32.4

Nationality of Plantation Labor, June 30, 1918 and 1917.

Courtesy Bureau of Labor and Statistics, Hawaiian Sugar Planters' Ass'n.

	1918	1917		1918	1917
Americans	702	730	Japanese	24,611	25,449
Spanish	529	946	Chinese	1,895	2,039
Portuguese	2,905	3,392	Koreans	1,299	1,370
Russians	41	49	Filipinos	9,964	9,971
Hawaiians	982	992	Others	280	306
Porto Ricans	1,500	1,451	Total.....	44,708	46,695

Births and Deaths by Nationalities and Counties, 1918.

Nationality	Oahu				Hawaii		Maui		Kalawao		Kauai		TOTAL	
	Honolulu		Other Dist.											
	B	D	B	D	B	D	B	D	B	D	B	D	B	D
American..	238	114	14	31	26	10	10	4	.....	15	5	303	164	
British.....	38	19	5	.....	17	4	1	4	.....	1	..	62	27	
Chinese.....	457	203	68	39	76	34	38	33	.....	1	20	659	331	
German....	12	14	.....	1	6	1	1	2	.....	8	9	27	27	
Hawaiian..	216	312	53	101	157	187	147	157	4	51	51	75	628	883
Part Haw'n.	509	153	75	15	174	41	156	40	12	19	55	7	981	275
Japanese...	1113	353	842	204	1356	435	676	215	.....	2	547	154	4,534	1,363
Portuguese.	299	106	111	29	306	92	207	74	.....	4	109	26	1,032	331
Porto Rican	20	15	42	12	94	37	46	20	.....	1	29	8	231	93
Spanish....	18	4	44	10	37	11	34	12	.....	23	5	156	42	
Russian....	10	5	.....	1	4	1	1	2	.....	5	.....	20	9	
Filipino....	30	62	112	71	137	106	50	52	.....	89	73	418	364	
Korean....	44	23	40	11	42	13	21	15	...	1	34	10	181	73
Others.....	17	12	.....	5	6	4	6	3	....	1	2	3	31	28
	3,021	1,395	1,406	530	2,438	976	1,394	633	16	80	988	396	9,263	4,010
Unrecorded	13		35		46		16				31		141	
Total....	3,034		1,441		2,484		1,410		16	1019	....		9,404	

Vital Statistics, Territory of Hawaii, 1918.

For Fiscal Year ending June, compiled from Board of Health Report.
Table of Births, Marriages and Deaths by Counties.

Islands, Etc.	Est. Popltn.	Births	Marriages	Deaths
Honolulu	75,000	3,034	1,427	1,395
Other Oahu Districts.....	41,500	1,441	174	530
Hawaii County.....	69,100	2,484	466	976
Maui County.....	38,500	1,410	279	633
Kalawao County.....	680	16	18	80
Kauai County.....	31,000	1,019	208	396
Total 1917-18.....	256,180	9,404	2,572	4,010
" 1916-17.....	250,627	8,707	2,762	3,498

Hawaii's Estimated Population, 1918, by Nationality.

Race	Number	Race	Number
American, British, German, Russian.....	30,400	Japanese	106,800
Chinese	22,250	Portuguese	24,250
Filipino	20,400	Porto Rican.....	5,200
Hawaiian	22,850	Spanish	2,270
Part Hawaiian.....	16,100	Korean	5,000
		Others	660
		Total.....	256,180

School Statistics, Territory of Hawaii, 1918.

From Report of the Superintendent of Public Instruction.
NUMBER OF SCHOOLS, CLASS, ETC.

Islands	Public Schools June 30, 1918.					Private Schools Dec. 31, 1917.		
	No. of Schools	No. of Teachers	No. of Pupils			No. of Schools	No. of Teachers	No. of Pupils
			Boys	Girls	Total			
Hawaii.....	63	261	5,084	4,464	9,552	8	29	1,019
Mau, Molokai....	44	157	2,691	2,403	5,094	10	40	1,125
Kauai.....	20	129	2,494	2,136	4,630	37	258	5,093
Oahu.....	41	420	7,979	7,088	15,067	2	3	64
Totals.....	168	967	18,248	16,091	34,343	57	330	7,301

NUMBER OF SCHOOLS, TEACHERS AND PUPILS.

Class	Schools	Teachers			Pupils		
		M.	F.	Total	M.	F.	Total
Public Schools.....	168	144	823	967	18,248	16,095	34,343
Private ".....	57	81	249	330	3,953	3,348	7,301
Totals.....	225	225	1072	1,297	22,201	19,443	41,644

AGES OF PUPILS IN PUBLIC AND PRIVATE SCHOOLS.

Schools	Under 6	6-9	10-15	Over 15	Total
Public Schools.....	25	15,117	17,702	1,499	34,343
Private ".....	1,556	1,633	2,844	1,268	7,301
Total.....	1,581	16,750	20,546	2,767	41,644

NATIONALITY OF PUPILS.

Races	Public	Private	Races	Public	Private
Hawaiian	3,216	689	Spanish	489	49
Part Hawaiian...	3,805	1,384	Chinese	3,305	1,129
American	849	1,024	Japanese	15,101	1,315
British	108	74	Porto Rican....	1,032	68
German	126	71	Korean	409	131
Portuguese	5,001	1,220	Russian	125	30
Filipinos	626	72	Other Foreigners	151	45
			Total.....	34,343	7,301

**Value Domestic Mdse. Shipments to the United States from
Hawaii for Fiscal Years Ending June 30, 1917 and 1918.**

Compiled from Monthly Summary of Commerce and Finance,
Bureau of Statistics.

Articles.	1917	1918
Animals	\$ 786	\$ 3,655
Art works, paintings, etc.....	1,315	228
Bones, hoofs, etc.....	4,871	2,597
Beeswax	7,497	8,708
Breadstuffs	12,813	15,385
Chemicals, drugs, etc.	3,173	1,112
Coffee	297,972	275,733
Cotton and manufactures of	1,843	.....
Fibers, unmanufactured—Sisal	89,543	127,987
Fruits and nuts	8,194,284	8,525,676
Hides and skins	295,216	398,719
Honey	62,462	161,930
Household and personal effects.....	24,527	230,034
Meat products, tallow	18,578	65,582
Molasses	392,110	634,671
Musical instruments	85,167	42,356
Paper and manufactures of	1,518	407
Pineapple juice	36,529	2,604
Rice	165,779	84,813
Straw and palm leaf, manufactures of	550	203
Sugar, brown	60,137,962	62,076,956
Sugar, refined	2,603,202	2,031,584
Tobacco leaf, unmanufactured	1,205	25,910
Vegetables	16,080	39,580
Wool, raw	27,395	81,805
Wood and manufactures of	93,992	20,167
All other articles	38,265	319,116
Total value shipments Hawaiian products.	72,614,625	\$75,177,518
Returned shipments merchandise	1,751,313	4,083,376
Total foreign merchandise.....	112,122	132,032
Total shipments merchandise.....	\$74,478,060	\$79,392,926

Shipments of Gold and Silver, 1918.

From United States to Hawaii:

Gold	\$1,895,000
Silver	92,800

From Hawaii to United States:

Gold	193,300
Silver	196

Import Values from United States, Comparative, for Fiscal Years Ending June, 1917 and 1918.

Compiled from Monthly Summary of Commerce and Finance,
Bureau of Statistics.

Articles.	Domestic Merchandise	
	1917	1918
Agricultural Implements	\$ 58,583	\$ 58,134
Animals	233,363	119,994
Automobiles and parts of	2,111,997	1,836,458
Books, Maps, Engravings, etc.....	524,435	372,181
Boots and Shoes	875,010	652,644
Brass, and manufactures of	178,108	167,604
Breadstuffs	3,142,022	3,039,729
Brooms and Brushes	60,794	52,317
Carriages, Cars, etc., and parts of	278,075	237,765
Cement	538,235	523,030
Chemicals, Drugs, Dyes, etc.....	649,878	670,451
Clocks, Watches, and parts of	45,325	37,839
Coal	125,457	157,411
Cocoa and Chocolate	66,361	55,693
Coffee, prepared	6,964	8,425
Copper, and manufactures of	201,006	90,601
Cotton, manufactures of, and clothing	3,416,098	2,895,748
Earthen, Stone and Chinaware	135,994	124,626
Eggs	120,000	205,156
Electrical Machinery and Instruments	1,004,966	1,049,174
Explosives	422,973	184,344
Fertilizers	2,127,381	2,035,300
Fibers, Textile Grasses, manufactures of	337,453	510,705
Fish	473,566	654,863
Fruits and Nuts	548,693	566,073
Furniture of Metal	114,134	79,944
Glass and Glassware	298,518	259,091
Hay	376,049	326,505
Household and Personal Effects	132,926	66,984
India Rubber, manufactures of	1,105,487	1,494,698
Instruments, etc., for scientific purposes	21,095	19,952
Iron and Steel, and manufactures of	347,968	413,173
Sheets and Plates, etc.....	348,245	328,368
Builders' Hardware, etc.....	731,660	472,837
Machinery, Machines, parts of	1,587,687	1,557,405
Nails, Spikes, Pipes, etc.....	3,819,117	2,791,816
Jewelry and manufactures, Gold and Silver...	218,083	215,981
Lamps, Chandeliers, etc.....	43,007	35,233
Lead and manufactures of	86,779	100,935
Leather and manufactures of	457,279	240,772
Marble, Stone, and manufactures of	61,674	27,947
Musical Instruments	153,270	150,976

Import Values from United States for 1917-18—Continued.

Articles.	Domestic Merchandise	
	1917	1918
Naval Stores	\$ 11,505	\$ 13,908
Oil Cloth	30,171	27,302
Oils: Mineral, Crude	1,586,373	2,176,174
Refined, etc.	1,654,499	1,913,753
Vegetable	141,753	157,314
Paints, Pigments and Colors	488,198	409,425
Paper and manufactures of	791,671	567,129
Perfumery, etc.	74,735	97,439
Phonographs, etc.	59,883	50,814
Photographic Goods	204,941	181,720
Provisions, etc., Beef Products	202,025	42,059
Hog and other Meat Products.	963,792	698,048
Dairy Products	878,816	678,447
Rice	267,423	594,698
Roofing Felt, etc.	42,096	40,355
Salt	28,249	29,613
Silk and manufactures of	263,914	226,108
Soap: Toilet and other	321,454	350,835
Spirits, etc.: Malt Liquors	249,676	194,316
Spirits, distilled	209,037	197,489
Wines	291,653	342,723
Starch	22,367	18,736
Straw and Palm Leaf, manufactures of	125,487	125,840
Sugar, Molasses and Syrup	112,192	92,261
Confectionery	231,511	186,075
Tin and manufactures of	1,287,624	2,177,513
Tobacco, manufactures of	978,773	1,065,689
Toys	76,523	75,428
Vegetables	710,543	609,393
Wood and Mfrs.:		
Lumber, Shingles, etc.	1,222,969	957,740
Shooks, box	415,918	536,501
Doors, Sash, Blinds	148,914	142,326
Furniture	359,093	233,059
Trimnings, Molding and other manfrs.	500,640	523,749
Wool and manufactures of	445,679	481,888
All other articles	990,446	2,239,864
Total value merchandie shipments.	\$43,967,256	\$43,646,515
Total value foreign merchandise from U.S.	307,219	.....

Quantity and Value of Principal Articles of Domestic Produce**Shipped for the Fiscal Year Ending June 30, 1918.**

Compiled mainly from Monthly Summary of Commerce and Finance, Bureau of Statistics.

Articles		Quantity	Value
Sugar, raw	pounds...	1,053,701,147	\$62,076,956
Sugar, refined	"	27,227,446	2,032,811
Coffee, raw	"	3,206,202	466,736
Rice	"	1,247,721	84,813
Fibers, sisal	tons	323	127,987
Fruits: Fresh Bananas	bunches..	153,583	109,637
Fresh Pineapples .....	.....	.....	10,236
Canned Pineapples .....	.....	.....	8,394,307
All other .....	.....	.....	10,892
Pineapple Juice .....	.....	.....	2,604
Beeswax	pounds...	23,932	8,708
Honey .....	.....	.....	161,930
Molasses	gallons...	14,671,477	634,671
Hides and Skins	pounds...	1,734,919	398,719
Wool, raw	"	188,091	81,805
Timber, lumber & unmnfrd wood	M ft.....	1	175
Fruits and nuts, foreign.....	.....	.....	115,162

Hawaiian Imports and Exports, Fiscal Year 1918.

Courtesy of Collector of Customs.

Countries:	Imports to June 30.	Exports to March 31.
Australia	\$ 118,443	\$ 20,284
Br. Oceania	71,974	161,923
Br. India	834,512	.....
Canada	345,340	88,856
Chile	1,001,069	.....
England	59,090	196
France	4,304	.....
Germany	6,064	.....
Hongkong	385,011	11,125
Japan	3,672,468	626,624
Scotland	9,901	.....
Other	288,852	242,210
United States	45,004,156	79,395,388
Totals.....	\$51,801,184	\$80,556,606

* The tables from the Summary of Commerce and Finance, on pages 21-23, differ in the amounts here shown.

Expense of Legislatures.

From Governor's Report, 1917.

Year.	Cost of Session	Cost per day	Bills Intro.	Bills passed.	Cost per bill passed
1911	\$70,245.84	\$1,170.75	410	169	\$415.66
1913	83,495.75	1,391.59	466	170	491.15
1915	71,478.67	1,191.31	498	226	316.28
1917	84,087.23	1,401.45	607	241	348.91

Number and Tonnage of Vessels Entering and Clearing at all Ports, District of Hawaii, 1918.

[Not including Transports and bunker coal vessels.]

	Entered		Cleared	
	Vessels	Tons	Vessels	Tons
Honolulu —Coastwise	260	726,607	277	810,842
Foreign	149	538,783	125	476,129
Hilo —Coastwise	48	77,557	36	64,370
Foreign	0	.....	1	1,105
Kahului —Coastwise	15	17,948	17	21,422
Foreign	1	1,778	0	.....
Koloa —Coastwise	7	4,708	14	9,482
Foreign	6	4,953	0	.....
Mahukona —Coastwise	3	2,177	9	7,471
Foreign	0	.....	0	.....
Total	489	1,374,511	479	1,390,821

Summary of Insurance Business, Territory of Hawaii, for 1917 From Report of Insurance Commissioner.

Class	Amount Written	Amount Premiums	Losses and Claims paid
Fire	\$ 48,508,089.66	\$ 857,887.65	\$ 41,714.87
Marine	142,081,106.34	452,523.41	175,036.64
Life	6,599,187.00	*1,220,108.49	297,364.31
Accident and Health.....	.....	56,864.84	15,926.86
Automobile .....	.....	65,944.54	18,360.97
Burglary .....	.....	861.46	43.19
Employers' Liability. ....	.....	13,715.24	7,070.70
Surety and Fidelity.....	.....	49,153.68	2,947.99
Plate Glass.....	.....	3,083.48	856.20
Workmen's Compensation.	.....	126,738.97	30,495.86
Other .....	.....	8,232.39	452.25
Total.....	\$197,168,383.00	\$ 2,855,114.15	\$ 590,269.84

* Of this amount \$869,860.19 is renewals.

Passengers to and from Hawaii, Fiscal Year, 1918.

Courtesy R. L. Halsey, Immigration Service.

	Arrivals			Departures		
	Males	Females	Total	Males	Females	Total
Insular Possns..	* 5	0	5	5	2	7
" "	†2,469	469	†2,938	943	173	†1,116
Mainland	* 332	202	534	757	568	1,325
"	†2,339	2,269	4,608	2,425	1,775	4,200
Foreign Ports..	*2,281	2,429	4,710	2,890	1,519	4,409
" "	† 396	308	704	1,239	1,228	2,467
Total.....	7,822	5,677	13,499	8,259	5,265	13,524

* Aliens. † U. S. A. Citizens. ‡ Including Filipinos.

Hawaiian Sugar Export Statistics from 1910

For earlier years see Annuals 1896-1914.

Year	Sugar		Molasses		Ttl. export Value
	Pounds	Value	Gallons	Value	
1910	1,111,594,466	42,625,062	100	7	42,625,069
1911	1,011,215,858	36,704,656	1,801,796	89,708	36,794,364
1912	1,205,465,510	49,961,509	1,734,318	77,241	50,038,750
1913	1,085,362,344	36,607,820	3,736,877	140,610	36,748,430
1914	1,114,750,702	33,187,920	4,110,404	149,597	33,337,517
1915	1,280,917,435	52,953,009	5,202,913	195,485	53,148,594
1916	1,137,164,228	54,418,300	8,399,014	327,284	54,745,584
1917	1,162,805,056	62,741,164	10,979,383	392,110	63,133,274
1918	1,080,908,797	64,108,540	14,671,477	634,671	64,743,211

Hawaii's Annual Trade Balance, etc., from 1910.

Year	Imports	Exports	Excess export Values	Custom house Receipts
1910	26,152,435	47,029,631	20,877,196	1,450,324
1911	28,065,626	42,666,197	14,600,571	1,654,761
1912	28,694,322	55,449,438	26,755,116	1,643,197
1913	37,519,620	43,471,830	5,952,210	1,869,513
1914	31,550,257	41,594,072	6,043,815	1,184,416
1915	26,416,031	62,464,759	36,048,728	1,019,534
1916	34,098,210	64,670,852	30,572,642	1,161,051
1917	46,358,341	75,115,983	28,757,642	1,169,085
1918	51,801,204	80,545,606	28,744,402	1,009,243

Receipts, Expenditures, and Public Debt of Hawaii, from 1910.

(From Official Reports.)

Years	Revenue	Expenditures	Cash Balance in Treasury	Public Debt
1910	3,641,245.35	3,435,082.87	845,218.51	4,079,000.00
1911	3,482,560.84	3,730,765.16	822,282.07	4,004,000.00
1912	3,963,588.55	4,002,483.00	690,550.70	5,454,000.00
1913	4,300,780.71	4,261,468.66	716,729.60	6,844,000.00
1914	3,925,187.95	4,263,863.64	366,001.24	6,844,000.00
1915	4,539,241.04	4,446,415.65	464,040.43	7,873,500.00
1916	5,626,905.33	5,553,700.66	539,388.71	8,024,000.00
1917	5,944,352.95	5,638,429.13	889,508.42	7,874,000.00
1918	7,208,047.73	7,441,043.45	711,517.21	8,749,000.00

Hawaiian Corporations, 1918.

Tables Courtesy of Treasury Department.

Class.	Total No.	Number and Capital Incorporated before and after Aug. 12, 1898				Total
		No.	Before	No.	After	
Agriculture ..	153	47	\$47,966,750	106	\$35,909,015	\$ 83,875,765
Mercantile ...	433	39	19,901,125	394	43,815,093	63,716,218
Railroad	9	5	7,370,000	4	7,139,960	14,509,960
Street Car...	2	...	.....	2	1,950,000	1,950,000
Steamship ...	2	1	3,000,000	1	6,000	3,006,000
Bank	7	1	600,000	6	1,650,000	2,250,000
Savgs. & Loan	13	...	.....	13	776,000	776,000
Trust	7	1	200,000	6	900,000	1,100,000
Insurance ...	2	...	.....	2	200,000	200,000
Eleemosynary	164	34	.....	130	.....	.....
Total....	792	128	\$79,037,875	664	\$92,346,068	\$171,383,943

Growth of Bank Deposits, Territory of Hawaii.

Fiscal Year—	No. Banks	Commercial Deposits	Savings Deposits	Total
1910	11	9,033,385.97	4,290,919.57	13,324,305.54
1911	16	10,289,707.89	5,020,555.62	15,310,263.51
1912	17	12,667,162.39	5,521,973.11	18,189,135.50
1913	17	11,641,901.30	5,384,395.72	17,026,297.02
1914	18	10,371,874.60	6,275,790.63	16,647,665.23
1915	19	12,378,041.53	7,736,569.32	20,114,610.85
1916	19	17,317,339.40	9,061,910.28	26,379,249.68
1917	22	22,486,524.31	10,205,496.70	32,692,021.01
1918	23	24,620,004.80	9,892,708.08	34,512,712.88

Assessed Values Real and Personal Property (by races)
for 1918.

Taxpayers	Real Estate		Personal Property	
	No. Tax payers	Assessed Value	No. Tax payers	Assessed Value
Corporations, etc....	817	\$ 88,643,557	1,044	\$ 88,665,035
Anglo-Saxons	3,379	24,306,847	2,208	3,976,871
Hawaiians	5,921	11,814,622	1,977	1,798,342
Chinese	1,074	2,801,484	1,590	1,578,635
Japanese	1,056	1,645,722	3,336	4,267,695
Portuguese & Spanish	2,511	5,331,088	1,539	821,069
Total.....	14,758	\$134,543,320	11,694	\$101,107,647

Arrivals and Departures of Shipping for Fiscal Year Ending June, 1918.

Compiled from Board of Harbor Commissioners Report.

Months	Honolulu				Hilo	
	Sail		Steam		Vessels	
	No.	Tons	No.	Tons	No.	Tons
1917 { July	10	16,044	43	286,338	11	47,439
Aug.	11	9,529	47	320,365	11	37,190
Sept.	8	9,195	35	225,289	6	30,117
Oct.	11	15,111	33	206,022	9	35,377
Nov.	7	6,175	47	289,717	5	26,394
Dec.	17	22,442	40	223,664	5	18,113
1918 { Jan.	8	11,604	59	332,608	3	6,340
Feb.	6	3,264	40	244,724	3	20,223
Mar.	15	13,025	43	235,314	8	16,488
Apl.	8	8,042	35	206,919	6	26,963
May	14	12,938	42	255,607	6	14,400
June	4	5,993	35	160,233	6	16,924
Total.....	119	133,362	499	2,986,800	79	295,968

Kahului reports 69 vessels, of 297,603 tons.

Port Allen reports 30 vessels, of 87,221 tons.

Export Value Pineapple Products.

	1916	1917	1918
Fresh Pineapples	\$ 77,111	\$ 23,546	\$ 10,236
Canned Pineapples	6,547,053	7,970,522	8,394,307
Pineapple Juice	8,750	30,520	2,604
Total.....	\$6,632,914	\$8,024,588	\$8,407,147

Value of Imports from Foreign Countries, 1918.

Bags	\$ 728,835	Fertilizers	\$ 3,456
Chemicals	1,070,221	Food Supplies	2,914,422
Coal	374,412	Spirits	76,963
Cottons	256,001	Miscellaneous	1,372,686
Total.....		\$6,797,048	

Hawaii's Bonded Debt, June 30, 1918.

Refund Bonds, 1905, 4%	\$ 270,000
Public Improvement 3½% Bonds	1,244,000
Public Improvement 4% Bonds	7,235,000
Total Bonds Outstanding.....	\$8,749,000

Pack of Hawaiian Canned Pineapple

Compiled from the Records of the Hawaiian Pineapple Packers' Association.

	1911	1912	1913	1914	1915	1916	1917
Hawaiian Pineapple Company.....	286,825	523,676	598,837	685,071	790,526	786,731	740,596
Haiku Fruit & Packing Company.....	100,409	100,178	140,600	207,216	182,951	144,462	172,515
Pearl City Fruit Company.....	31,825	80,352	84,451	93,533	115,747	69,790	64,198
Hawaiian Islands Packing Company.....	42,000	82,930	114,181	152,310	169,439	203,391	187,289
Kauai Fruit and Land Company.....	15,966	31,020	53,152	65,846	75,503	84,992	90,030
Thomas Pineapple Company.....	49,300	99,135	94,082	107,056	133,284	168,276	74,087
Libby, McNeill & Libby of Honolulu.....	49,456	141,318	223,555	491,639	605,717	579,913	623,083
Maui Pineapple Company.....	8,268	25,177	46,270	80,682	98,363	97,156	108,601
Hawaii Preserving Company.....	141,693	229,527	311,994	379,453	469,906	431,145	482,402
Honolua Ranch .....	.....	.....	.....	5,975	9,180	18,222	19,498
Hawaiian Canneries Company.....	.....	.....	.....	.....	19,000	25,405	44,732
Total number of cases for the respective years.....	725,742	1,313,363	1,667,122	2,268,781	2,669,616	2,609,483	2,607,031

PINEAPPLE COMPANIES OPERATING IN THE HAWAIIAN ISLANDS

Company:	Office Location:	Manager:	Representatives:
Hawaiian Pineapple Co., Ltd.....	Honolulu, Oahu	James D. Dole	Haw. Pineapple Co., Ltd., San Francisco
Libby, McNeill & Libby, Ltd.....	Honolulu, Oahu	C. P. Judkins.....	Libby, McNeill & Libby, San Francisco
Thomas Pineapple Co., Ltd.....	Honolulu, Oahu	C. H. Medcalf.....	Cal. Packing Corporation, San Francisco
Pearl City Fruit Co., Ltd.....	Waiawa, Oahu	Alfred W. Eames ..	Cal. Packing Corporation, San Francisco
Haiku Fruit & Packing Co., Ltd.....	Haiku, Maui	A. E. Lister	Haiku Fruit & Packing Co., Ltd., San Fran.
Honolua Ranch	Honolua, Maui	Harold W. Rice.....	T. H. Davies & Co., Honolulu
Kauai Fruit & Land Co., Ltd.....	Homestead, Kauai	D. T. Fleming	Alexander & Baldwin, Ltd., Honolulu
Hawaiian Canneries Co., Ltd.....	Kapaa, Kauai	W. D. McBryde	Kelly Clark, Seattle
		Albert Horner	James F. Morgan & Co., Ltd., Honolulu

Taxes by Division and Counties for the Fiscal Year Ended June 30, 1918.

Courtesy of Auditing Department.

DIVISION OF TAXES	OAHU.	MAUI.	HAWAII.	KAUAI.	TOTALS.
Special Territorial	\$ 47,014.95	\$	\$	\$	\$ 47,014.95
Real Estate	1,011,911.65	335,733.93	452,706.95	167,197.70	1,967,550.23
Personal Property	690,253.45	224,743.76	370,161.19	178,486.35	1,463,644.75
Penalties	1,927.05	163.51	275.90	24.05	2,390.51
Court Costs and Interest	7,036.62	864.78	1,867.89	21.95	9,791.24
Bicycles	2,998.60	616.00	828.70	403.70	4,847.00
Automobiles	100,660.78	23,701.86	30,370.05	15,836.75	170,569.44
Carriages, Carts, Etc.	11,490.00	3,270.00	4,853.90	3,310.00	22,923.90
Brakes and Sulkies	412.00	114.00	468.00	262.00	1,256.00
Road	44,698.05	20,259.10	31,915.43	15,820.55	112,693.13
Poll	22,069.24	10,035.98	15,782.29	7,887.65	55,775.16
Dog and Dog Tags	2,472.96	956.67	2,145.15	730.45	6,305.23
School	43,323.33	20,072.12	31,576.13	15,775.20	110,746.78
Income	660,902.91	74,500.14	40,800.77	18,223.40	794,427.22
Special Income	286,927.65	34,583.60	15,091.49	6,518.40	343,121.14
Total.....	\$2,934,099.24	\$749,615.45	\$998,843.84	\$430,498.15	\$5,113,056.68

Summary of Meteorological Observations, Honolulu, 1917-18.

Compiled from U. S. Weather Bureau Records, by L. H. Daingerfield, Meteorologist.

(Continued from preceding Annuals.)

MONTH	BAROMETER		RAIN FALL	REL. HUM.		TEM- PERATURE		MEAN TEMPERATURE				Cloud Am't	Wind Velocity
	8 a.m.	8 p.m.		8 a.m.	8 p.m.	Max.	Min.	6 a.m.	2 p.m.	9 p.m.	Mean. of Max. and Min.		
July	30.07	30.06	0.56	61	66	84	69	73.8	81.0	75.6	77	4.4	8.3
August	30.07	30.06	1.12	61	66	86	71	75.1	82.3	76.6	79	4.1	7.8
September	30.05	30.04	0.67	64	66	85	70	74.5	82.1	76.9	78	3.7	7.8
October	29.98	29.98	1.47	66	70	85	68	74.0	80.3	75.4	77	4.1	6.2
November	30.04	30.03	3.07	69	72	83	61	71.9	78.1	74.3	75	5.2	7.5
December	29.95	29.95	4.64	72	73	82	65	71.1	76.6	72.5	73	5.4	7.6
January	29.98	29.96	5.89	72	72	82	57	69.2	75.2	71.2	72	6.4	7.5
February	30.00	30.01	3.14	71	71	80	62	68.5	73.9	70.2	71	5.8	9.2
March	30.01	29.99	4.78	70	73	82	62	67.8	74.1	69.3	71	6.5	8.0
April	29.98	29.97	6.87	71	74	80	64	68.9	74.1	70.3	72	8.3	9.9
May	30.01	30.00	0.40	65	70	83	65	71.4	77.8	73.1	75	5.7	8.1
June	30.00	29.98	0.87	66	68	84	69	73.2	78.9	74.6	76	4.7	8.7
Year.....	30.01	30.00	33.48	67.3	70.1	83.0	65.2	71.6	77.9	73.3	74.7	5.4	8.0

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TABLE OF RAINFALL, Principal Stations.

Compiled from Weather Bureau Reports.

Stations	Observer	1917					
		July	Aug.	Sept.	Oct.	Nov.	Dec.
HAWAII							
Waiakea.....	D. Forbes	7.17	3.58	3.45	4.74	16.24	10.26
Hilo (Town).....	L. C. Lyman ..	4.77	2.42	2.50	4.45	14.19	6.47
Ponahawai.....	J. E. Gamalielson	7.15	3.56	2.53	4.41	13.98	9.42
Pepeekeo.....	Pepeekeo S. Co.	6.00	4.06	3.96	2.87	15.04	7.60
Hakalau.....	W. F. Klatt	6.45	2.91	2.56	3.06	13.57	6.39
Laupahoehoe....	E. W. Barnard..	4.01	1.10	0.92	4.30	14.54	6.09
Ookala.....	Kaiwiki S. Co..	2.92	0.77	0.59	3.04	14.87	6.80
Kukaiau Mill....	A. R. Phillip....	4.42	.....	0.30	2.06	15.05	5.99
Paauihau.....	G. B. Wait.....	0.93	0.06	0.09	0.71	8.17	3.70
Honokaa.....	Hon. Sug. Co....	0.98	0.15	0.13	0.78	7.98	2.32
Waimea.....	F. Pinho	0.81	1.06	4.34	4.48	2.90	2.24
Kohala.....	Dr. B. D. Bond..	1.08	1.00	0.47	0.88	4.84	3.18
Holualoa.....	Kona Dev. Co...	10.28	9.15	8.96	11.57	1.80	3.89
Kealahakua.....	Robt. Wallace..	9.10	7.02	7.94	13.49	2.73	4.00
Naalehu.....	Hutcn S. P. Co.	0.22	0.32	0.12	2.15	0.90	8.21
Pahala.....	Haw. Agr. Co..	0.54	0.35	0.69	3.69	0.63	8.50
Volcano Obs.....	T. A. Jagger Jr.	2.29	1.95	1.90	2.25	5.45	5.68
Olaa (17 miles)...	Olaa Sugar Co..	6.03	3.82	4.06	4.10	17.54	5.93
Kapoho.....	H. J. Lyman ...	4.52	4.63	2.83	6.29	5.39	6.32
MAUI							
Haleakala Ranch.	Hal. Ranch Co..	.00	0.97	3.64	4.01	4.74	3.39
Puuomalei.....	A. McKibbin ...	1.90	2.26	2.06	5.42	4.96	6.14
Makawao.....	F. W. Hardy ...	0.57	1.36	2.35	4.61	5.60	4.75
Kula.....	A. von Tempsky	1.22	1.50	1.75	3.86	1.74	3.60
Haiku.....	Mrs.L.B.Atwater	1.71	2.28	1.33	2.53	5.98	4.30
Keanae Valley...	G. W. Weight..	8.68	8.55	4.88	4.20	14.64	8.31
Wailuku.....	Bro. Frank	0.09	0.76	0.20	0.36	1.42	4.01
Hana.....	Kaeleku S. Co..	3.96	3.68	2.07	7.53	4.29	4.87
OAHU							
Honolulu.....	U. S. Weath. Bu.	0.56	1.12	0.67	1.47	3.07	4.64
Kinaiu Street....	W. R. Castle ...	0.40	1.07	0.47	1.77	3.51	4.10
Manoa.....	U. S. Geol. Surv.	4.85	4.34	4.30	4.48	11.08	5.50
Electric Lt. St....	A. Walker	5.73	6.27	9.42	3.32	7.39	7.94
Luakaha.....	L. A. Moore ...	5.31	9.75	6.53	5.40	12.98	11.51
Waimanalo.....	Ed. Todd	0.28	6.61	1.18	5.50	5.19	8.61
Maunawili.....	Jno. Herd	2.37	3.38	5.68	4.87	7.70	8.35
Wai'alua Mill....	Wail. Agrl. Co..	0.64	2.18	2.73	2.00	3.26	4.41
Kahuku.....	H. T. Christfrsn.	1.02	1.20	2.43	1.50	3.61	5.45
Ewa Plantation..	I. A. Hattie	0.42	1.55	1.05	0.87	1.39	5.19
Schofield Brks...	Surgeon U.S.A..	1.33	1.57	4.56	2.38	2.45	10.88
Waiawa.....	A. Lister	3.25	1.95	4.82	5.24	7.90	7.26
Waimalu.....	Hon. Plan. Co..	1.20	1.82	2.82	2.56	5.35	7.26
KAUAI							
Grove Farm.....	G. N. Wilcox ...	5.24	3.08	4.34	3.15	3.64	3.42
Kealia.....	Makee Sgr. Co..	3.95	1.23	3.07	3.39	3.10	1.34
Kilauea.....	Kilauea Sug. Co.	5.88	7.57	5.55	5.20	4.71	3.26
Eleele.....	McBryde S. Co.	1.90	1.89	0.99	4.21	1.16	4.67
Kukuilua.....	F. L. Zoller	2.93	2.40	3.55	2.80	2.40	3.25
Waiawa.....	Kekaha Sug. Co.	1.25	.00	0.44	7.75	.00	4.35

Throughout the Hawaiian Islands, 1917-1918.

By A. M. Hamrick, Section Director. Continued from last Annual.

Locality	Ft. Elv.	1918						
		Jan.	Feb.	Mar.	Apr.	May	June	Year
HAWAII								
Waiakea	50	20.83	31.98	25.49	28.05	17.14	9.64	178.57
Hilo	100	13.89	29.43	21.78	16.68	14.47	.....	.....
Ponahawai	500	24.33	43.64	24.05	29.18	19.33	11.40	192.98
Pepeekeo	100	20.80	26.77	24.04	22.98	9.06	10.44	153.62
Hakalau	200	20.51	24.71	28.50	27.20	15.34	11.83	163.03
Laupahoehoe	100	16.50	27.52	23.18	48.16	18.99	13.07	178.38
Ookala	400	12.08	26.32	18.66	50.07	16.98	11.93	165.03
Kukaiau	250	9.46	25.81	14.68	54.21	26.39	10.75	.....
Paaupau Mill	300	6.84	22.61	12.91	31.19	17.48	6.85	111.54
Honokaa	470	8.35	24.32	13.57	37.63	16.07	8.32	120.60
Waimea	2720	7.17	9.55	9.31	9.80	3.01	3.04	57.71
Kohala Mission ...	521	7.49	10.40	8.40	21.86	9.88	6.40	75.88
Holualoa	1450	14.23	8.30	6.34	6.78	2.14	3.47	86.91
Kealahakua	1450	6.16	8.34	6.50	4.62	3.40	4.45	77.75
Naalehu	650	12.61	20.04	5.19	8.56	1.12	2.42	61.86
Pahala	850	17.06	21.72	11.02	9.08	1.19	2.35	76.82
Kilauea Crater	3984	19.02	40.65	12.75	13.82	10.86	4.30	120.93
Olaa, Puna	1530	28.21	47.92	25.82	28.04	23.04	12.69	207.20
Kapoho	110	18.25	14.47	19.11	37.79	4.52	5.69	129.81
MAUI								
Haleakala Ranch ...	2000	12.03	12.24	12.34	17.88	2.88	1.31	75.43
Puuomalei	1400	14.40	16.31	12.57	26.32	8.57	4.54	105.45
Makawao	1700	10.59	9.93	9.61	12.12	4.32	1.75	67.50
Erehwon	4200	6.63	7.83	3.86	2.20	2.73	1.21	38.13
Haiku	700	9.15	13.56	11.24	22.84	7.25	5.01	87.18
Keanae	1000	16.90	33.58	50.16	71.04	19.45	19.20	259.59
Wailuku	250	5.17	8.85	4.90	11.39	0.91	1.82	39.88
Hana	145	10.14	8.56	13.27	27.60	6.26	3.08	95.31
OAHU								
U. S. Weather Bu...	108	5.89	3.14	4.78	6.87	0.40	0.87	33.48
Kinau Street	50	6.28	4.08	5.45	6.70	0.35	0.98	35.16
Woodlawn	300	5.90	.....	.....	.....	13.51	12.30	.....
Nuuanu Elec. Stn...	405	10.48	7.68	18.23	15.67	4.17	5.20	101.50
Nuuanu Water Wks.	881	14.71	14.24	30.06	32.24	17.30	10.60	170.63
Waimanalo	25	8.75	6.50	7.95	18.89	1.78	1.68	67.92
Maunawili	250	14.91	8.20	21.82	25.15	8.97	4.64	116.24
Waialua	30	7.47	4.03	3.02	7.53	0.30	1.17	38.74
Kahuku	25	8.51	5.84	6.14	16.56	1.67	1.17	55.10
Ewa	50	6.94	3.35	4.68	7.63	0.24	0.37	33.68
Leilehua	990	7.73	3.69	5.02	9.88	1.68	0.26	51.43
Wahiawa	675	8.75	4.86	7.65	9.20	0.82	1.84	63.54
Ewa	200	7.87	5.08	6.44	9.64	0.61	1.37	52.02
KAUAI								
Lihue	200	7.88	5.94	13.86	13.18	1.96	1.21	66.90
Kealia	15	6.72	4.61	10.75	8.79	0.78	1.69	49.42
Kilauea	342	6.96	5.11	18.38	11.46	2.15	3.30	79.53
Eleele	150	4.83	3.42	5.57	6.78	0.15	0.41	35.98
Koloa	100	6.05	4.10	12.25	8.80	0.30	0.70	49.53
Waimea	30	5.42	4.29	5.54	5.26	0.10	0.10	34.50

HAWAII'S FIRST TERRITORIAL FAIR.

THANKS to the leading spirit and example of the Hawaii and Maui County Fairs of the past few years, the "powers that be" were at last awakened to the desirability of an annual exhibit to be held in Honolulu, of broader, more comprehensive scope, which would embrace the varied interests of all the islands, thus by cooperative effort make it Territorial in character.

The Fair Commission of Hawaii, appointed by Governor Pinkham, comprised: Geo. H. Angus, chairman; H. P. Agee representing Oahu; Jas. Henderson for Hawaii; H. W. Rice for Maui, and A. H. Case for Kauai. C. R. Willard was chosen secretary. The initiatory work of the Commission in the selection of Committees for its several divisions began February 1st and were made representative of the leading interests throughout the group.

It is to be admitted that legislative aid was sought two years earlier for this very purpose, and with the success beyond the most sanguine expectations which attended this initial effort, we involuntarily sigh for the "what might have been". Yet who can say but what the delay inured to our benefit and contributed largely toward crowning the recent undertaking with success. We like to think that the postponement stimulated the various activities which entered into its make-up, as it certainly did the spirit of appreciation by the general public who thronged its gates.

Kapiolani Park, fortunately settled upon as the exhibition grounds, never served a better purpose and proved ideal. Its ample area afforded liberal space for the various exhibition structures, booths and pens, beside its grandstand and race track conveniences. Other sites that had been considered would have cramped the enterprise, whereas here the committee felt free in their ambitious plan for the double purpose of education and amusement of the masses, as it proved.

The time set for the exhibition, Kamehameha-day week,

June 10th to 16th inclusive, had its advantages, making an appropriate observance of the popular National Hawaiian holiday, and made memorable by the participation of Hawaii's distinguished guest, Hon. Franklin K. Lane, secretary of the Interior, in the opening exercises. Through the hearty coöperation of the federal army officials, with Col. R. McA. Schofield in charge of details of the army equipment, valuable aid was rendered the Commission in its plans, construction, exhibits, provision for and management of the various sports and military manoeuvres which were made a realistic and educational daily feature.

This first fair was a war-time effort, with as little expense as possible, yet its cost, up to the opening, was reported at about \$20,000, toward which the legislature had appropriated but \$6,000 as a revolving fund for annual fairs. Fortunately the large daily attendance, which exceeded expectations, enabled the exhibit to close with a little over \$6,000 above all expenses.

The paid admissions, (placed at the nominal sum of twenty-five cents), for the several days, were: Monday, opening at 1 p. m. 6114, Tuesday 25,525, Wednesday 7032, Thursday 8743, Friday 6494, Saturday 15,186, Sunday 6271, besides which there were many season tickets at \$2.50, and exhibitors' tickets at \$1.50 each, disposed of. The total attendance for the week is given as 92,000, a number far exceeding the population of the city.

There were seventeen main structures sheltering agricultural, educational, mechanical, and commercial exhibits, and the division for live-stock, etc., was as liberal, and justly so, for the display was a surprise, some 370 head being exhibited, among which were many "blue blood" prize winners from the various ranches of the several islands, in competition for new honors, and a splendid showing they made. These comprised 183 head of cattle, 86 horses, 93 hogs, and 8 sheep. There were also 169 dogs, 122 bunnies, 9 cats, together with a good

variety of the feather tribe of some 150 entries, though not in the season of their best plumage.

Appropriate to the war spirit of the times the first division on entering the grounds was devoted to the exhibition and demonstration of things military, not only in the variety of weapons of past and present use, but illustrations of methods practiced therewith were courteously shown.

Most encouraging was the exhibit of the agricultural division, which appealed to a larger body, whether as producers or consumers. Here was demonstrated beyond cavil the possibilities of home-grown products, representing farm, homestead, plantation section and school effort, in illustration of what Hawaii is capable of doing toward self-sustenance. We confess this touched us in a tender spot, being the ANNUAL's advocacy for over forty years. The display of agricultural products, in variety and treatment bore evidence of the valued service and influence of the federal experiment station located here, and its sub-stations on the other islands. Their own exhibits, which included new products as wheat and flour substitutes, in helping to "win the war" was very gratifying. The demonstrations to meet various soil conditions and insect pests awakened many to a realization of what our small farmers have to contend against.

The entomological exhibit of the Bureau of Agriculture and Forestry, and of the Planter's Association experiment station, was of great interest and value. Here the general public had the opportunity to see and familiarize themselves with the many dangerous pests that menace all agricultural effort, and but for the diligent search in all lands by foremost experts in this science through the Planter's Association and the government for the particular parasite for each of these winged, boring, and burrowing enemies, very many of our fields would be laid waste, as could easily be understood by the samples of the destructive work here displayed.

In the plant division, among other things was shown the

progress being made in cultivating cane, pineapple and taro from seed, heretofore propagated only by cuttings and suckers. The exhibit of cane growth from seed at various stages, from the tassel up to well developed plants, recalled the suggestion of such a possibility at the Agricultural Society's fair of 1852, which was unfavorably reported upon the following year. This was revived again some twenty-five years ago by Capt. G. W. Wilfong, an experienced planter, but who at that time was practically alone in his views. For some years past the Planter's experiment stations have been successful in this method of cane growing for the propagation of new varieties, though it is said to require some five months longer time to mature than from cuttings, and not always true to its strain. The samples of most of the varieties of cultivated canes of the islands, indigenous and introduced, with charts of comparative sugar product per acre, spoke volumes for the scientific investigation and culture work of the Planter's experiment station, by which means Hawaii's sugar industry takes front rank.

The plant and flower exhibit was an attractive display that lured a steady throng of delighted visitors. The hibiscus as usual won new laurels, and other cut flowers embodied a variety beyond general expectation, showing the success attending new introductions. Palms and ferns also called forth admiration by their size, variety and grace. Many other rare plants and miniature garden work lent a pleasant charm to this section, which had some 300 entries.

Among the various exhibits of the industrial and merchandise division the leading business houses were very creditably represented, and included Chinese and Japanese attractions and products. Here was witnessed the modern method of broom making, as also samples of willow furniture of island growth and manufacture, two of Honolulu's new industries. Another evidence of progress was the sample products of the Portland cement works of the Maui Agricultural Co., Paia, Maui, which compares favorably with the imported article.

Samples of fine writing paper resembling bond in quality, in white and blue tint, made from cane bagasse, showed the possibility for establishing a new enterprise from waste material, beyond the coarse product Olaa is making for its own use.

The arts and crafts exhibit covered paintings in oil and water colors, photographs, pastels, drawings, etchings, ceramics, statuary and designs, in which all our professionals contributed liberally, and a number of new aspirants participated. The entries here totalled 400.

The food and conservation section gave practical demonstration to householders on the Hooverized question of saving for the war, with an address each day on the various phases of the subject by prominent women of the community. Besides the various articles of American and European cookery, there was also a Chinese, a Japanese and a Hawaiian table with samples of their cooked products and delicacies. Hawaiian canned tuna made a creditable showing for an infant industry.

Rest rooms for weary sight-seers were thoughtfully provided in attractive manner by the Y. W. C. A., and the Army and Navy Y. M. C. A., besides which the refreshment booths gave opportunity for rest and recuperation of overtaxed powers.

Large and attractive was the automobile division, the display of the variety of leading makes, and of types for pleasure, or for more serious service, was an indication of the importance of "the horseless" to present needs in Hawaii.

The aquarium, in addition to its collection of live fishes of brilliant hues, had the walls of the main section hung with plaster casts of other and larger types, from the Bishop Museum, which, with exhibits of the sundry articles essential to present-day fishing methods here displayed, made an interesting division.

Military manoeuvres and sports characterized the afternoon events, and entertainments of each evening, from mob singing.

war movies, etc., to a "Night in Japan", which latter closed the full and varied week's program.

The electric lighting and display was a noted feature of the exhibition, its dazzling brilliancy lending special attractiveness to the exhibit and grounds.

Adjacent to the exhibition grounds, at the southern end, was an outside attraction called the Joy Zone, where varied concessions sought by amusement and prize or gift contests to attract the public and engender the "get-rich-quick spirit". This is no place for a preachment, yet there are those who believe that such side shows are wide of the purpose and spirit of the exhibition in that it detracts from the educational opportunity which taxed the time, talent and energy of the foremost men and women of the land to ensemble.

Notwithstanding the large daily attendance, the crowds were orderly and the officials courteous. But one mishap occurred throughout, unfortunately fatal, a rider being thrown by his horse stumbling. The week passed without an arrest at the park, or the reported loss of anything. The parking system for the many autos too was highly commendable, thanks to the military and policing of the enterprise.

The total receipts of the fair are shown at \$53,514, and its total expenditures at \$47,300, leaving a credit balance of \$6,214.

A COMING CELEBRATION.—Tentative plans are being considered by a Committee of the Hawaiian Evangelical Association, of which W. R. Castle is chairman, for the Centennial celebration, next year, of the landing of the American missionaries in these islands, whose arrival by the brig *Thaddeus*, April 2, 1820, was fraught with so much moment to Hawaii and its people. The committee consists of W. R. Castle, F. D. Lowrey, G. S. Waterhouse, D. H. Hitchcock, Mrs. W. F. Frear, Miss Mary Winne, C. A. Rice (Kauai), G. P. Cooke (Molokai), Dr. W. D. Baldwin (Maui), Mrs. A. S. Baker, Levi Lyman (Hawaii).

OUR FOUNDATION LAYERS.

HONOLULU REMINISCENCES OF THE EARLY 'FIFTIES.

BY THOMAS G. THURM.

EACH time I have written of early Honolulu events which left their lasting impression upon me, or became part of the city's recorded history, the impulse was felt to pay a tribute of appreciation to those worthies of the early 'fifties (or preceding), who contributed largely in laying the foundation stones of Honolulu's enterprise and Hawaii's prosperity.

Without prejudice to other features of this paper justice demands that the Judiciary have first consideration, for until "law and order" was established, enterprise lagged or was panicky. In the formation of the Constitutional government it was no light task to secure persons qualified for the administration of justice. Judge Andrews, with inexperienced native associates, though they were king, and governor, had a difficult position, and until the Courts commanded respect and held the confidence of the community, brow-beating and other indignities before the tribunals by shipmasters and even foreign officials were not infrequent, as may be gathered from the *Polynesian* in its court proceedings of those days. The accidental arrival here of Wm. L. Lee, and his consent—through Dr. Judd's intercession—to accept the chief justiceship, was a wise and timely act of the administration, and the Constitution of 1852, too liberal for its day, was largely his work. His influence was recognized and beneficial beyond court circles during his life here, for he lent his aid in all organizations for the public weal, as also in establishing one or two business enterprises, and he successfully negotiated Hawaii's first reciprocity treaty with the United States, which the senate failed to approve. His untimely end, through pulmonary trouble, was a grief to all Hawaii, a recognition of the fact that his coming had not been in vain.

SHIPPING ATTRACTIONS.

My earliest acquaintances of Honolulu were with those of its waterfront, since father's work as a shipwright—as at first mentioned—naturally drew attention to the personnel of the firms engaged in that line of enterprise, which at that time were two, viz., Jas. Robinson & Co., and Emmes & Johnson, the former being the pioneer concern in that line whose faithful work had long since established the reputation of the port as second to none in the Pacific for facilities for the repair and refitting of ships. An acknowledgment of this fact, and its influence in making Honolulu the rendezvous of the whaling fleet of this ocean may be found of record in Wyllie's Notes in *The Friend* of 1844, as also in the *Polynesian* of earlier year. With the increasing shipping business of the port following the California gold fever, the new concern was established, to be followed a few years later by two others, the successor to all of whom has become merged into the Inter-Island Steam Navigation Co.

The firm of Robinson & Co. at this time (1853-5) comprised James Robinson, familiarly known as "Jimmy"; Robert Lawrence, better known as "Uncle Bobby", the founders; and Robt. W. Holt, who joined them sometime later. Their shipyard, dating from 1827, was at the point, known as Pakaka, adjoining the then Fort, with front on Queen street, the premises now occupied by the Allen & Robinson lumber business, with its wharfage. Robinson was an Englishman, as were also Lawrence and Holt. They were all shrewd, conservative men and became not only wealthy as a firm, but held also much property, individually, in town and country, more particularly Robinson and Holt. Mr. Robinson survived his partners a number of years, the first break occurring in 1862 by the death of Mr. Holt, the junior member, followed by that of Mr. Lawrence in 1868.

The Emmes & Johnson shop, as it was called, was near the then north end of Queen street, about the site of the Honolulu

Iron Works Co.'s new warehouse, corner of Smith street. The junior member of the firm, Wm. H. Johnson, was an American, and an out and out Methodist that a few years later, with John Thos. Waterhouse, Thos. Thrum and several others, established the first chapel of that denomination here, which was erected at the corner of Nuuanu and Kukui streets, and later became the birthplace of the introduced St. Andrews' Episcopal church under Bishop Staley. But this is digression.

Mr. Geo. J. Emmes was an Englishman. The shipyard of the concern was the open premises at their front, below Queen street, to the wharf. At least this is where all the heavy spar-making was carried on; vessels built or hauled up for repairs; where the steam-boxes and pitch kettles were located, and where Princess Victoria's schnr. *Kamamalu* was enlarged under the supervision of her guardian John Ii, and at its relauching bore her name-plates on taffrail and stern in carved instead of painted letters, the work of the wood-carver of Vincent's shop. There must have been a "hoo-doo" on this vessel, for early on re-entering the coasting trade, on a trip to windward, she was never heard of after leaving Lahaina; was supposed to have capsized in the Hawaii channel and sunk with all on board—some 70 souls.

Shortly after the relauching of this vessel the old shop was torn down and a new structure took its place, a special cargo of lumber from the Sound coming for that purpose. The firm next built the schnr. *Kamehameha IV.* and ran her in the Maui trade for some time before finding a buyer. About this time Mr. Emmes withdrew from the firm and joined forces with a Mr. Dan'l. Burns, who had located at the foot of Mauna Kea street. Mr. Dan'l. Foster became next interested with Mr. Johnson, and they were doing a flourishing business when the "Flour Mill" fire on the opposite corner from them wiped them out of existence. In due time they arose, Phoenix-like, from their ashes, but it was not long before the firm

changed and became Messrs. Dan'l. and Thos. R. Foster, with their shipyard at the eastern end of the Esplanade, Mr. Johnson returning to the States. It was prior to this that the "box system" for the under-water repair of ships came into vogue, a Honolulu invention that in the absence of dry-dock facilities proved of great value to the shipping interests of the port; to the whaling fleet with their stoven bows, and war-ships' damage, notably the Austrian frigate *Donau*, in 1870, and the U.S.S. *Nipsic* from her Samoan hurricane experience, for stern repairs, the success of which brought Messrs. Foster a goodly sum, and in the case of the *Donau*, official thanks.

MERCANTILE ENTERPRISE.

In treating of the efficiency of the port for the attraction of shipping, like credit is due the several mercantile houses of that period whose capital, enterprise and facilities contributed very largely to this ideal, and it is to be borne in mind that this was in the days before banks were known here. The early established firms of C. Brewer; Starkey, Janion & Co.; Makee, Anthon & Co.; the Hudson Bay Co.; Castle & Cooke, and two or three others held the reigns of commerce, say, up to 1850, about which time new firms established to share in the business of the country and the upbuilding of Honolulu, among which were Porter & Ogden, J. C. Spalding, H. Hackfeld, R. Coady, B. F. Snow, A. J. Cartwright, von Holt & Heuck, Melchers & Co., Thos. Spencer, F. Stapenhorst, A. P. Everett, Aldrich & Russ, Swan & Clifford, Hall & Dimond, Gulick & Clark, J. T. Waterhouse, Allen & Co., I. R. Mitchell, and others more particularly devoted to the retail trade.

Of the above, Capt. Jas. Makee, R. Coady, Thos. Spencer, and C. Brewer were, with H. A. Pierce, J. I. Dowsett, Dr. B. F. Hardy and other private parties and ship-masters, the pioneers in Honolulu's whaling enterprise which gained in promoters for several years till in 1859 or '60, when the fleet was at its zenth. Suffering set-backs from this point it grad-

ually reduced in size and numbers and drifted into Arctic trading and then retired.*

Important as was the whaling fleet with its semi-annual visits to these islands for repairs, refitting, refreshments, and shipment of their catches home, vested interests realized its precariousness and sought to encourage agricultural effort as a basis upon which to build for the future. And this movement ante-dated Honolulu's venture in oil.

CHAMBER OF COMMERCE ORGANIZES.

In 1850, the Royal Hawaiian Agricultural Society for the "promotion of Hawaiian Agriculture" formed, and October 15th. following a preliminary meeting on the 1st, the Honolulu Chamber of Commerce organized at the store of Starkey, Janion & Co., at which meeting Messrs. Geo. F. Hubertson, B. F. Snow, Robt. C. Janion, H. N. Crabbe and A. B. Howe were elected a "committee to manage the affairs of the Chamber and to continue in office until January 1, 1852". The signers to the Constitution adopted, in addition to the above officers, were: R. Coady, H. Hackfeld, Jas. Makee, Alai, H. A. Pierce & Co., G. S. Kenway, J. P. Porter, C. P. Samsing & Co., R. H. Bowlin, G. W. Macy, A. W. Parsons, Dugald McTavish, C. S. Bartow and Ayong. The first act of the Chamber was the adoption of a Tariff of Charges for the guidance of trade, and an invitation extended for "all merchants, traders and planters of the islands to join in aid and influence for its support." Mr. J. Chapman was its secretary.

THE AGRICULTURAL SOCIETY.

Did space permit it would be of interest to present the names of the organizers of the Agricultural Society, so general appeared to be the realization of its importance and desirability of coöperative effort. The prime movers are shown by the preliminary meeting held in the Bethel, April 29, 1850. Judge L. Andrews was chairman, and Chas. R. Bishop, sec-

* The history of Honolulu's share in the Whaling Industry of the Pacific may be found in the *Annual* for 1913.

retary. Judge Lee stated the objects toward formation, viz.: "Uniting the action of those interested in the culture of the soil, and to seek legislative aid for the mutual protection of masters and servants." Messrs. S. Reynolds, W. Newcomb, J. F. B. Marshall, J. Fuller, Rev. S. C. Damon, R. Armstrong, H. M. Whitney, Ed. Johnson and S. N. Castle spoke in favor of the project, and a committee comprising W. L. Lee, J. F. B. Marshall, R. W. Wood, W. Newcomb, and S. Reynolds were appointed to further the objects set forth by Judge Lee and to fix upon a time for the general meeting. In a discussion on laborers, introduced and domestic, J. T. Gower with a number of the above-mentioned took part. So active and earnest were the committee in the duty assigned it that a convention for organization was held in August, of four day and evening sessions, 12th to 15th inclusive. Organization was completed and constitution adopted on the second day. The officers elected for its first year were: Hon. Wm. L. Lee, president; B. Pitman, Jr., and G. S. Kenway, for Hawaii; L. L. Torbert, Maui; S. G. Dwight, Molokai; G. Rhodes, Kauai; S. Reynolds, Oahu, vice-presidents; S. N. Castle, treasurer; R. H. Bowlin, recording secretary, and R. C. Wyllie, corresponding secretary. The latter declining, E. P. Bond was chosen in his stead. The executive committee for the term comprised: R. W. Wood, J. F. B. Marshall, W. Newcomb, E. O. Hall and G. A. Lathrop.

The president's address on the importance of their organization, as also R. C. Wyllie's on the science of agriculture were valuable inaugural papers. Other practical essays and historic papers comprised:

Reminiscences of Hawaiian Agriculture by Stephen Reynolds.

Benefit of Agricultural Associations by H. M. Whitney.

The Manufacture of Sugar in the Sandwich Islands by Dr. R. W. Wood.

The Culture of the Vine and Tobacco by G. M. Robertson, as also several communications.

Plans of action and discussions thereon, and appointments of the various committees for reports at the annual gathering and exhibit in 1851, wound up a long and busy session, at which time thirteen life and 116 annual members were enrolled, which three years later had increased over 50%.

The introduction of Chinese as laborers into Hawaii is traceable to its influence and coöperation, the first shipment of some 200 arriving here per ship *Thetis*, Capt. Cass, in 1852; it also inaugurated our rice-growing industry of which Dr. S. Porter Ford was the pioneer; promoter of wheat growing which led to the establishment of our first flour mill; encourager of improved stock of all kinds and farming in general; of cane-growing and sugar-making, whereby steam machinery was introduced into the industry, the Lihue plantation of Kauai being the first, and incidentally leading to the inauguration of steam for commercial purposes in Honolulu at the same time by the establishment of Honolulu's Foundry and Machine Shop by D. M. Weston, of which the present Honolulu Iron Works is the successor. Furthermore, it was the prime mover, instead of the Chamber of Commerce, for the treaty of reciprocity with the United States which Judge Lee successfully negotiated.

Unfortunately the Society was short-lived,—less than ten years of annual activity—during which period its summer-time exhibits of agricultural products, horticulture, stock and industry were of more than educational value. Its influence in the improvement of agriculture generally; of floriculture, and the introduction of animals, bees, birds, fruit and flowering trees and plants suitable to our climate was felt long after, thanks to the untiring efforts of Dr. Wm. Hillebrand, the benefits of which we enjoy today. Its fairs were usually held at the Court house and Mauna Kilika adjoining, and was the

event of the year, as is hoped the present movement for County fairs will become.

I like to refer to the reports of this Society for their record of early endeavor in so many lines of island industry, they are an inspiration to coöperative effort for community interests. Some of the special papers were ahead of their time, notably R. C. Wyllie's plan in 1852, for the establishment of a Hawaiian Bank of Loan, Deposit and Discount, with a capital of \$500,000 in shares of \$100. each. Some thought him daft on the subject, as it was one he expressed the islands' need of in 1844 and in 1847. He formulated a workable scheme worthy of better result apparent at the time, yet I doubt not the attentive ears of Chas. R. Bishop and W. A. Aldrich drank in the benefits of the opportunity presented, which five years later bore evidence by the opening of Honolulu's pioneer banking house of Bishop & Co.

CHANGING CONDITIONS

The fact that a number of prominent merchant-members of the Society exchanged their Honolulu interests for that of agriculture, or participated therein, indicated the success of the Society's aims as set forth in the preamble to its Resolutions at organization, viz., "The members of this Society believe Agriculture to be the great basis of Commerce, Manufactures and all other business, and the only sure foundation of Hawaiian prosperity," for it was not long before Capt. Jas. Makee bought the Torbert plantation on Maui, and winding up his Honolulu business moved with his family to, and made Ulupalakua famous with success, socially and financially, for in due time he became interested in the Waihee plantation of Maui, and the Makee Sugar Co. of Kauai. Capt. Thos. Spencer, too, changed from this city for the Hilo business of B. Pitman, which drew him also into sugar. R. C. Wyllie next established the Princeville plantation, on Kauai, at a heavy outlay for the time, but reputed to have been a model, efficient concern. Theo. Metcalf about this same time started

his Kaupakuea plantation, near Hilo, and the Haiku Sugar Co. of Maui, held interests of several Honoluluans. A little later several others started, though the business interests of the islands were passing through a period of depression.

Honolulu was adjusting itself to new conditions and many business changes were taking place. Besides the withdrawals above noted were the failures of Swan & Clifford from high finance methods of the senior partner, and of Allen & Co. through loss in their whaling ventures; the death of Richard Coady, a whole-souled inspirator of effort, which, with two or three disastrous fires, the appearance of the coffee blight, and the declining of the whaling fleet, was having a combined depressing effect. As already stated, new firms were establishing and a number of old business shingles changed, but nobody withdrew, seeking a new Eldorado.

The auctioneers of this period under review evidently all did well, more so perhaps than can be said of the business today. As wielders of the hammer I recall the stately presence of A. P. Everett, M. C. Monsarrat of handsome mien, Henry Sea, all equally tall men, as was also fun-making F. W. Thompson, who died shortly after my arrival. Taking his place came John F. Colburn from Lahaina, followed a few years later by John H. Cole from the same burg.

THE MEDICAL FRATERNITY.

A noble band were the medicos of Honolulu of my early days, not but what there has ever been such, but through the small-pox scourge, as mentioned in a former paper, I was made familiar with a coterie of the profession and their unselfish, tireless work in combatting it, all of which was entered upon gratuitously. Drs. T. C. B. Rooke, W. Newcomb and G. P. Lathrop had charge of our section of the city, towards Nuuanu stream, while Drs. S. Porter Ford, Ed. Hoffman and B. F. Hardy each had other divisions, as also special hospitals (termed pest-houses) for their daily care. Dr. Rooke being a long resident was naturally more familiar with the

conditions and needs of the people, and his experiences during this siege impressed him more than ever of the need of an established hospital for the care and treatment of Hawaiians. Here is where Queen Emma got the idea which, enlisting the support and influence of the king, they entered heartily into the project and solicited funds for the establishment of the institution which is named in her honor.

Dr. Wm. Hillebrand, who came about that time, was an invalid on his arrival, but as he gained in health he gave of his skill and strength, notably to the interests of the Agricultural Society, and the hospital grounds upon its founding. Dr. Hoffman, with his medical skill, was also a talented pianist, whose valued services in entertainments and social functions were taxed on all occasions. Dr. Ford's talent as a surgeon was of a high order and he was noted for his remarkably cool temperament. It was said of him, in proof of this, that at the close of a critical operation he had performed, taking up a needle in each hand and holding them at arm's length, he brought his hands together that the points of the needles met, without a tremor.

MUSICAL HONOLULU.

Honolulu is reputed to be a musical community. This is but the natural outcome of early training and association that may be traced back to the Royal School days, first of Mr. and Mrs. A. S. Cooke, then their successors, to whom may be credited the musical taste which developed in Mrs. Bishop, Liliuokalani, and Mrs. E. K. Pratt, influencing Court circles.

Among my earliest memories of Honolulu linger those of its "song-birds", not a few of whom were under the training of Mr. E. G. Beckwith. In time there were three Beckwith brothers here, teachers, and all of musical ability, who discovered the latent talent in their pupils. There were several families, notably of "the mission" that won recognition by the sweetness of their voices, principal of which, through the 'fifties, were the Cookes, Judds, Armstrongs, Halls, Clarks,

and somewhat later the Holden sisters as also Mrs. J. H. Paty and the von Holt sisters. Much later were other notables of this and the other islands, through Punahou teaching.

The Amateur Musical Society of the early 'fifties, while largely instrumentalists, possessed several remarkably fine vocalists. Mrs. Dr. Ford and Mrs. R. Coady, sopranos, and Mrs. Chas. Brewer, contralto, were a rich-voiced trio. Mr. G. Reiners, a fine baritone, and T. H. Davies, tenor. The services of all the above named were the mainstay of our church choirs, and their talents were freely given in concerts for worthy objects. In 1858 the advent of Messrs. von Haslocher and Waldau, pianist and violinist, both of whom resided here several years, was an uplift in musical circles. One of Honolulu's song-birds took up music as a profession, studying abroad, and became known to the world as Annis Montague, the Hawaiian Nightingale.

The choir of the 2nd Foreign Church was from its start a large and fine one under Mr. E. G. Beckwith's leadership ably assisted by Asa G. Thurston, and this excellence "set the pace," and was maintained through the years of Fort street Church and falls to its successor, the Central Union, as to its high class, though of fewer numbers of late except on special occasions. The Bethel too in the old days held a fine quartette in its choir with Mesdames Ford and Brewer, and J. Fuller of trained bass. The tenor I do not recall. The choirs of the Catholic and Episcopal cathedrals maintained the characteristic features of their denominations in high class music that has contributed its uplifting influence in the community.

While Honolulu has been visited by a number of very noted singers, as also celebrated pianists, violinists, organists, etc., Grand Opera performances have been few and far between.

MOULDERS OF THOUGHT.

Out of the foregoing and intimately connected therewith, arises the memory of those who stood in the front rank of the community for the moulding and guidance of public opinion

and action, and to the credit of Honolulu it must be said, those who were looked to as leaders were all conservative men. I do not recall any hot-headed visionaries "holding the fort" at any time "for keeps". Even the historic "Committee of Thirteen" that disrupted the Judd administration in 1853, swallowed a cabinet pill quite as conservative, and in time its "moving spirits" forgot their ailments and joined the ranks of harmony. R. C. Wyllie, W. L. Lee and John Ii, were the influential trio in this crisis.

In the controversies of the day Mr. Wyllie was ever active, and apart from his official correspondence as Minister of Foreign Affairs, defending us from misinterpreted and ignored treaties, he wielded a ready pen on commercial, financial, or other subjects of public interest. Another staunch exponent of thought on all questions affecting the community was Mr. S. N. Castle, whose able mantle for public service has fallen upon the second and third generation. Rev. S. C. Damon, with *The Friend*, eschewing politics, was ever alert on public moral questions, more particularly perhaps to temperance, education and the welfare of seamen. In proof of this latter was the success attending his appeal and labors for the establishment of the Sailor's Home, as mentioned in my last, a movement which not only provided home comforts for sailors while in port, free of bar-room influences, but awakened the grog-shop sailor boarding houses of that period to a more sane and sanitary provision for their patrons' comforts.

E. O. Hall's editorship of the *Polynesian*, succeeded by C. G. Hopkins, and Abr. Fornander in the opposition paper, *Argus*, kept public questions balanced without undue party feeling, aided by occasional signed and *nom de plume* contributions, from among whom emerged Wm. L. Green of profound thought and energy, author of "The Molten Globe", a deep student of volcanology that would have revelled in the work of Prof. Jaggar and his Volcano Research work of to-day. A few years later than the *Argus*, but with a more pronounced anti-

government attitude, was born the *Pacific Commercial Advertiser* by H. M. Whitney, which at once became the leading journal, and in all its long course to date has wielded a strong influence throughout the islands, though not for the best in the '80s.

Oahu College "seed sowing", in time, produced results of which any institution or country might well be proud, for not a few of her sons became illustrious in all walks of life. Among the broad-minded, executive men of mark in one sphere or another whom we delight to honor stand the names of Armstrong, Alexander, Bingham, Baldwin, Castle, Cooke, Damon, Dimond, Dole, Gulick, Judd, Lyman, Lyons, Lydgate, Thurston, Wilcox and others, and the good work is still going on.

In this brief sketch of subjects that have had a direct influence upon the social and civic welfare of the community, perhaps sufficient has been shown to enable Honoluluans of today to better appreciate the labors of some of the pioneers in laying her foundations, the benefits of which we now enjoy. Compared with the present, that period was a day of small things, but in results they are not to be despised. Other important eras have followed which have, in a measure, obscured but not obliterated the vision of the past. It is well thus to recall our early days, even though some were days of adversity, "lest we forget; lest we forget."

ALOHA HONOLULU.—We came! We saw! We are captivated! We are enrolled in the "Come-Back Club," and it is your genuineness that has put the round trip tag on our ticket. Your hospitality is genuine. Your patriotism is genuine. There's a reality in your war work that we propose shall prove an incentive to your comrades on the mainland. Hawaii is on the map! Hawaii is on the march! Alarmed, alert, aggressive, you, in common with your sister states and territories have set yourselves to make the way of the transgressor so hard that never again shall humanity be pirated and plundered by the war mongers whose God is Moloch, and whose gospel is treason and terror.—W. J. Sherman, in *The Friend*, June, 1918.

DR. WILLIAM HILLEBRAND, M.D.

1821-1886.

BY WILLIS T. POPE.

FEW of the early benefactors of Hawaii are as little known to-day as Dr. William Hillebrand. Information bearing directly on the life of this worthy man is difficult to find, but research shows that he now has countless numbers of living monuments to his memory, for to him is due much of the credit for the introduction of many of the valuable fruit and ornamental trees and other economic plants of the Hawaiian Islands.

The traveler who loves plant-life, when visiting the Hawaiian Islands, is sure to notice first the beautiful flowering trees and abundance of verdure. Many of the citizens of the islands, at the present time, as well as visitors, do not realize that much of the vegetation which now so greatly enhances the beauty of this favored spot, had to be brought from other lands and that a great work of



DR. WILLIAM HILLEBRAND

introduction was necessary which required study and perseverance on the part of those who did it. Dr. Hillebrand was the chief of leaders in this work.

WHAT HE DID FOR HAWAII.

From a few who still survive, we learn that Dr. Hillebrand was for years a favorite family physician of Honolulu; a medical doctor who was selected as the physician of the Royalty of the land and a good citizen who was ever ready to employ his energies in a wise way toward the permanent betterment of his adopted country.

To the interested person who endeavors to investigate the work of Dr. Hillebrand, there appears some striking evidence which indicates that his twenty years in Hawaii were filled with considerable activity and that the results of much of it is everlasting. The many valuable introductions of plants, birds and animals, with which we find his name associated, were greatly aided by the finances of others. Dr. Hillebrand was so qualified that he fit well into the progressive movements of those early days which made it possible to bring to Hawaii a wealth of plant-life and insectivorous birds, as well as many laborers who were so vital in the problem of establishing the great sugar industry of the islands. Here it is well to note that these early immigrants from distant lands have been moulded into an honorable citizenship of their adopted country, which proudly reflects with credit upon those who caused their coming.

IMMIGRATION WORK.

During the reign of Kamehameha V., a Bureau of Immigration was formed. In April of 1865, Dr. Hillebrand, who had been selected as a Commissioner on account of his many qualifications, was sent on a mission to China, India and the Malay Archipelago, to make arrangements for the importation of laborers. On this trip, he was accompanied by his family. In addition to his major mission of securing laborers for the rapidly developing sugar industry of Hawaii, he was to obtain information as to the possibilities of a source of unlimited supply of laborers for such further development as the sugar planters might choose to make. The mission was furthermore opportune to learn what he could concerning the control of leprosy, as this disease had found its way to Honolulu, possibly through Oriental relations. He was also to secure seeds, plants and animals, such as might prove beneficial.

We find again in 1877, through the agency of Dr. Hillebrand, who was then residing on the island of Madeira, that arrangements were made for the immigration of Portuguese

from the islands of Madeira and Azores. It is interesting to note that the pioneer company of 180 Portuguese reached Honolulu September 30th, 1878, and since that date thousands more have come to Hawaii.

AID IN MANY INTRODUCTIONS INTO HAWAII.

During a residence of twenty years in Honolulu, Dr. Hillebrand's knowledge and interest in plant life associated him very closely with the plant introductions made during the period from 1851 to 1871. He gradually formed about his home an extensive garden, thickly set with a great variety of shrubs and trees collected from all parts of the world. These grounds on Nuuanu avenue still abound with rare and beautiful specimens. The fine assemblage of rare trees, now so familiar in the Queen's Hospital grounds, in the surroundings of the Lunalilo Home for aged Hawaiians, in the old nursery grounds on King street and in collections in many private grounds throughout the islands are evidences of those days when Dr. Hillebrand was associated with the Royal Agricultural Society and a most enthusiastic officer and member who worked for the future development of Hawaii.

As corresponding secretary, he made it his duty to arrange for seed and plant importations. A good authority informed the writer that such trees as the Royal Palm, Monkeypod and many others reached the islands as seeds through his early efforts. When traveling in foreign lands, he was authorized to secure seeds and plants of such economic importance as would prove of value. Previous to his journeying to China, the Malay Peninsula and India, as a Commissioner of the Bureau of Immigration, in 1865 an appropriation of \$500.00 was made for him to expend for seeds, plants and animals, as, in his judgment, would prove beneficial to the Hawaiian Islands. This appropriation was made jointly, by the Planters Association and the Royal Hawaiian Agricultural Society.

The *Hawaiian Gazette* of July 28th, 1866, gives a report of the Royal Hawaiian Agricultural Society which states that

Dr. Hillebrand had procured and forwarded a shipment of a number of Wardian cases from the following points: Ten from Singapore, nine from Calcutta, one from Ceylon, eight from Java and two from China. These contained seeds, plants and birds of various kinds. From other records of those days, it is indicated that those shipments brought to Hawaii the following trees, either as seeds or plants: the Camphor, Cinamon, Mandarin orange, Chinese plum, Jack fruit, Java plum, Litchi, several species of *Eugenias* and Banyans and a considerable number of other ornamental shade trees and beautiful flowering trees. With the above mentioned consignment was a collection of birds among which were the Carron crows of Calcutta, two kinds of Goldfinches, Indian sparrows, Japanese finches, Chinese quails, Silver pheasants, Mongolian and Golden pheasants, Linnets, Rice-birds and the Mynah birds. There was also a pair of deer each from China and Java. A more thorough search of the records of those times would no doubt give us a much longer list of the early importations.

COLLECTION, STUDY AND PUBLICATION.

During a period of about thirty-five years, from 1851 to his death, Dr. Hillebrand almost regularly devoted a part of his time to the making of plant collections which he carefully classified and preserved. This study of the Hawaiian flora made it necessary for him to visit all of the larger islands of the group, penetrating even the innermost recesses of their deepest canyons and climbing the lofty mountain sides to all elevations within the range of plant life. His interest in general science took him to the summits of the highest mountains and to various volcanic activities. Such extensive botanizing required the making of many excursions; these were often made with some well-informed native guide, sometimes other well-known scientists, as Mr. John Lydgate and Dr. Horace Mann accompanied him. His eldest son, Mr. W. F. Hillebrand, was his most constant helper in the making of these plant collections. This rather extensive herbarium of Ha-

Hawaiian plants was finally contributed to the Royal Museum of Berlin, where it is a part of a great collection maintained for study. After leaving Hawaii, Dr. Hillebrand also made plant collections in the islands of Madeira and Azores. In Hawaii, Dr. Hillebrand found himself among the greatest number of indigenous species known to any comparatively small locality at the time of discovery by white men, and had the distinction of being the first to authentically name and describe some 250 species, which were previously unknown in botany. His co-workers who had a share in the naming of these newly discovered Hawaiian plants, named a genus and a number of species in Dr. Hillebrand's memory.

The name of "Hillebrand Glen" was given to a beautiful little wooded canyon on the Ewa side of Nuuanu Valley. This name was given to the place long after he had left the Hawaiian islands, presumably due to his having discovered a very choice fern therein.

During the last few years of his life, he worked very hard to complete the publication of the "Flora of the Hawaiian Islands" but his death preceded the finishing of the final proofs. The management of the completion of the work was carried on by his son, who had assisted his father so long and faithfully as a student and collector. The publication was completed in 1887 and for a long period of years was practically the only technical work treating of Hawaiian plants that was generally used. The book has a particular value in that it gives much of the Hawaiian's knowledge of plants as well as the Hawaiian names. The plants of known introduction previous to the time of publication, received mention. The "Flora of the Hawaiian Islands" is still indispensable in a detail study of plant life of the islands.

Dr. William Hillebrand was born in the town of Nieheim of Westphalia in Germany, on November 13th, 1821. He was one of six children of the family of Judge Franz Josef Hillebrand, the mother being Louise Pauline (Konig) Hillebrand.

Of the six children four were boys and two girls. The latter were named Pauline and Wilhelmina, both of whom died rather young. Little trace is given of the four boys, other than they were named Henry, Franz, Herman and William. There is reference to Herman having lived in Honolulu during a part of the time that Dr. Hillebrand was there. Herman was known as a prosperous dairyman in the vicinity of Honolulu until his death. He was a brother-in-law of the well known Rev. Sereno E. Bishop.

Little is known of Dr. Hillebrand's boyhood. His early education was gotten in the schools of his birthplace. He afterwards studied rather extensively in Gottingen, Heidelberg, and Berlin. In the latter city, he studied medicine, receiving the degree of M.D. His education was thorough, as is indicated by the rating he had as a physician, and by the importance of the public service he rendered during his lifetime. He was considered a careful scientific thinker and a fluent linguist, having mastered the German, English, Latin, French and Hawaiian languages. Dr. Hillebrand was a good conversationalist but seems to have had no particular reputation as a lecturer. Several descriptive articles in reference to volcanic activities on the island of Hawaii indicates his ability to write fully of his scientific investigations.

After completing his education in Germany, Dr. Hillebrand practised medicine in the city of Heidelberg but in a very few years was forced to discontinue on account of ill-health. He traveled to Australia and the Philippine Islands, recovering somewhat. In Manila, he took up the work of his profession but declining health again obliged him to wander. An extended sea voyage brought him to San Francisco somewhat improved. The conditions offered by the Pacific Ocean seemed best suited for the restoration of his health, so, acting on advice, he sought the Hawaiian islands, arriving in Honolulu in 1851. Here, the mild climate soon restored his health and he became a citizen of the island kingdom, where in the next

twenty years he did so much good and lasting work. In Hawaii, Dr. Hillebrand took up the practise of medicine. Aside from becoming a favorite family physician he was physician for the Queen's Hospital most of the time from its establishment until he departed from the islands in 1871. He was for a time physician at the Insane Asylum and was the private physician of Kamehameha V. At one time he was an active member of the Board of Health and for years a partner of Mr. J. Mott-Smith, in the drug business, their store being located on one of the corners at the intersection of Hotel and Fort streets, Honolulu.

Dr. Hillebrand was long associated with the Royal Agricultural Society of Hawaii and for several years was its corresponding secretary. During the reign of Kamehameha V., he was a member of the Privy Council.

Dr. Hillebrand, at middle-age, is described as a quiet, sober, practical man of medium height and weight, complexion fair, eyes gray and as possessing an abundance of rather dark hair. He was fond of his family and took particular interest in the education of his children, two sons, William Francis and Henry Thomas. He was very fond of flowers but seemed to have no particular favorites. It is believed that his favorite fruit was the Malaysian Mangosteen, as he had made considerable effort to encourage its growth in Hawaii. The Doctor was very fond of music and enjoyed playing on the piano, but his favorite recreation was that of working among his horticultural specimens in his home garden.

Dr. Hillebrand was married during the second year of his residence in Honolulu, on November 16th, 1852, to Miss Anna Post, a step-daughter of Dr. Wesley Newcomb, a prominent physician of Honolulu during the 'fifties and who as a conchologist showed much interest in the collection and study of Hawaiian shells. Having a desire to travel and do further botanical study and work in the preparation of his publication the "Flora of the Hawaiian Islands", he sailed from

Honolulu on June 27th, 1871, for San Francisco en route to Europe. During the next fifteen years, he resided in different parts of Germany and Switzerland and for some years was in Madeira and Teneriffe, where he also made extensive plant collections. For over two years, previous to his death, he was seriously ill, which greatly interfered with the completion of his work upon the Flora. He died suddenly after an operation in Heidelberg on the 13th of July, 1886. His remains lie in the burial place overlooking the fertile valley of the Rhine on the outskirts of the beautiful town of Heidelberg, so endeared to him by the recollections of his student days and the associations of several years of residence during the latter years of his life.

SCIENTIFIC TREASURE TROVE.

BY J. M. LYDGATE.

IN MY boyhood days at Punahou I developed an interest in Botany and made the acquaintance of Dr. Wm. Hillebrand, a resident physician of Honolulu, who was making a careful study of the flora of these islands, and in that connection was making a large collection of Hawaiian plants.

An active, observing boy, this Dr. Hillebrand took quite a fancy to me, because of my interest in his favorite avocation, and took me with him on a collecting tour over the islands of Molokai, Maui, and Lanai, which occupied the whole of the Summer. That was in 1869, I think; and for years thereafter I continued to collect for him as opportunity offered; and often I spent memorable happy days with him at his simple home in the midst of the wonderful garden which he had created filled with strange and beautiful plants and trees that he had gathered from all parts of the world. This garden afterwards passed into the possession of Thos. Foster and is now known as the Foster Place,—up Nuuanu.

Not long after, Dr. Hillebrand left the islands and went

to Europe to prepare his monumental work on the Hawaiian Flora. And for some years, up to the time of his death, I continued to send him collections of such interesting plants as I found in my wanderings. By this means I was able to add very materially to the completeness of his collection, and very many new and interesting finds reached him from my hands.

In return for these services, which he valued very highly, and as an evidence of his interest and regard, he finally made up a type collection for me and sent it out to me from Germany.

This was somewhere along in the 'eighties, perhaps 1886 or 1887. I was then deeply immersed in plantation problems and interests as the manager of the Laupahoehoe Sugar Co. and the collection of plants made comparatively little impression on me.

Some time after this I left the islands to complete my education and remained away for some years, and never again returned to Laupahoehoe, except for an occasional visit. Finally the old homestead was abandoned by the departure of my mother to Honolulu. Accordingly the old home has been unoccupied for the last fifteen or sixteen years. And during all this time the collection of plants was forgotten,—or if remembered at all, it was only to take it for granted that it had been destroyed by insects. In fact for years I have had the settled conviction that I opened the case and found only the riddled, mildewed remains of what had been.

This last Summer when on Hawaii my mother suggested that we make a visit to the old place and see what was left of it, and whether it had much value.

A faithful Japanese family who had been with us for many years, rented part of the property to plant cane on, and into their hands the old home was given over by my mother on her departure, with detailed instructions about the various things that were left. The old lady arrived with the keys, opened the rusty locks with some difficulty, and took us through

the old house where so many happy days had been spent and so many interesting experiences enjoyed.

The house was over forty years old, and the climatic conditions of the Hilo District are very trying to a frame house like that; but we were very much surprised to find that it was in an excellent state of preservation. The foundations, the walls, the floors and the roof were intact and sound; there were no signs of leaks anywhere; even the windows were in fairly good shape. The only apparent ravages that Time had wrought were in the steps and the exposed sections of the verandas. The paint even was still intact,—even on the outside,—while within it looked as fresh as though it had been applied only a few months ago. Apparently much better material was put into buildings then than now. All this by the way.

In one of the upstairs rooms, the old lady who was acting as guide, pointed to a box on the floor and said that Mama told her to look out for that box; it was “Nui nui waiwai; books paha?” (Very valuable, perhaps books.)

I tilted the box gently with my foot and knew instantly that it wasn't books, it was too light. At the same time the well-made box suggested an Old Country origin;—then like a flash it came to me, “This is my Hillebrand collection of plants.” And none but a scientist, with a hobby that is a weakness, will know the joy that flared up in me at the discovery. It was a matter of a few moments to get hold of a hammer and open the box, and sure enough, there were the reams and reams of dried plants, every one of them an old friend and bringing back thrilling memories of bygone experiences by mountain peak and valley glen; the high light touches of a lifetime; all carefully labelled with name and location, and laid away between files of old newspapers. It was no place, then and there, to make a thorough examination. I nailed the box up, had it carried over to the railway station

not far away, and there forwarded to the Bishop Museum, with which I was on friendly terms of relationship.

Now, in a collection of plants such as this there are two elements of value. One is the intrinsic value of the plants as a collection. It would take months of effort to reproduce such a collection;—nay, years perhaps; in fact some of the plants are extinct and could not be duplicated at any price. The other element of value is the nomenclature. Hillebrand, as the result of years of study and special advantages in the way of comparison with standard collections abroad, had determined the names and formulated the descriptions that were authoritative. These names and descriptions were published, to be sure, and were available for all. But imagine having to pick out your child from a catalogue by a description; one glance at the child would be more conclusive than reams of description! This collection, being Hillebrand's own findings, was accordingly absolutely authoritative, and consequently exceedingly valuable for purposes of comparison. I felt sure that it would be appreciated, all the more for the reason that there was no other such collection in the country.

Accordingly, on arrival in Honolulu, I went immediately to the Bishop Museum and apprised Mr. C. N. Forbes, the Botanical Curator, of the find that I had made and that I felt that it ought to go to the Bishop Museum; and accordingly I would like to dispose of it to them if they cared to take it. "Of course," I said, "I can't say for sure what condition the collection is in; but you look it over, and see what it is like and then let me know, and what you think it is worth."

A few days later I received a letter from him telling me that the collection was in perfect condition, that it contained 566 specimens almost all in perfect shape, and that they would propose a price of \$500 for the collection.

I could have fallen through the floor! I had been wondering if I would have the assurance to ask \$100 for it; but that was once when I had sense enough to hold my tongue.

Later the Trustees took action on the matter, and without question or delay voted the expenditure, and in due time the check reached me.

And so I call it a scientific treasure trove; as much of a treasure find as though I had stumbled onto it in a cave, or a hole in the ground.

HANA OF HISTORIC TRADITION AND ROMANCE.

THE south-eastern division of the island of Maui, comprising the districts of Hana, Kipahulu, Kaupo and Kahikinui, must have been at one time a central point of kingly and priestly power, and held strong attractions which drew from across the Hawaii channel so many attempts of envious aliis to invade its shores, subdue its people and possess their lands. In this and other respects it is a section especially rich in historic traditions, in not a few of which are interwoven legendary tales of romance. Here too centers some of the characteristic popular myths of the Hawaiian race which hark back to their primitive days.

A recent tour through this region threw much new light on such subjects, known hitherto, as might be said, theoretically, hence the added value to the lore of the districts by a practical knowledge of the points of interest, which are to be found on shore, valley, stream, hill and mountain peak, for each hath its tale whereby deeds of valor and chivalrous romance are kept green in the memories of the people.

This section was prominent in the reign of Kekaulike, and holds the ruins of Maui's largest heiaus. These temples, erected with aid of his priests in the Kipahulu and Kaupo districts, in furtherance of his war designs on Hawaii, attest his ambition and power. Kamehameha-nui also held his court here, but with less war-like propensities, so that he was completely surprised by an attack from across the channel when Kalani-

opuu came into power, and died while the best part of Hana was in possession of the invaders, of which more anon.

Entering the picturesque little harbor of Hana, Maui's easternmost point, one is at once in a sphere rich in traditional lore, some of which trends on comparatively modern times.

The hill of Kauiki, on the left-hand side in entering the harbor, was Hana's stronghold, and the bulwark of Maui's defence for generations. It was the storm-center in all attempted invasions of the district, whether by land from rival Maui chiefs, or by sea from Hawaii's ambitious aliis. It is said a great image stood at the base of the hill to help defend its sole ladder means of ascent, which overawed all would-be assailants, mistaking it for a giant guard, believed to be the tutelar genius of the fort. In Umi's raid two of his noted warriors returned from their attempt with "cold feet", but the third, more venturesome, discovered the deception, overthrew the image, routed the guard and captured the fortress. The hill was also captured by Kalaniopuu's forces at a much later period, and in the several battles that took place during his control it is not unlikely that Kamehameha shared in its experiences, for it was off this coast, to acquaint himself with the strange sight, he and a few companions boarded Cook's ships and stayed over night, to the great alarm of those ashore, lest they see him no more.

On Kalaniopuu becoming sole Moi of Hawaii, he suddenly concentrated his forces and canoes at Kohala and without notice invaded Maui, where Kamehameha-nui then ruled, making a descent in the Hana district, and in a short time possessed the two valuable districts of Hana and Kipahulu, and the fort on Kauiki hill. Kamehameha-nui, recovering surprise, with allied forces laid siege to the fort, but it resisted all his attempts and was in Hawaii's possession for several years.

Kalaniopuu still held portions of the Hana district and the Kauiki fort in 1775, when, in the war between Hawaii and Maui, he commanded in person a raid in the Kaupo district,

then under Kahekili's rule, in which great cruelty and suffering was inflicted upon the people till Kahekili came from Wailuku into the district, and at a battle near Kalaeokailio routed the invaders and pursued them to their fleet lying under the lee of said point, that barely a remnant escaped to Hana.

Hawaii's king thereupon withdrew to his own island and for a year prepared for a retaliatory war on Maui, organizing six brigades, with aliis forming a life-guard called Keawe, and nobles comprising two regiments known as Alapa and Piipii. In 1776 these forces landed in the Honuaula district from Keonionio to Makena, thence on to the isthmus between Kalepolepo and Maalaea, and engaged Kahekili's warriors in that celebrated battle on Waikapu commons when the flower of Kalaniopuu's army, including his Alapas, were annihilated, save two left to tell the tale of slaughter.

Following up his success, Kahekili invaded the Hana district, which had been Hawaii's since 1759, and reduced the fort on Kauiki hill and re-annexed the district. The fort held out strongly until its supply of water was cut off by damming and diverting the springs in the vicinity, when it capitulated.

At the base of Kauiki, at the side lapped by the gentle waves of Pueokahi, is pointed out as the birthplace of Kaahumanu, who became the favorite wife of Kamehameha the conqueror, and upon her conversion to Christianity was a power throughout the group for the uplift of her people. Hana also furnished Hawaii with an earlier queen, whose betrothal to King Umi was done by proxy, but the gorgeousness of Princess Piieka's outfit and accompanying canoe-fleet that conveyed her from Hana across to Waipio to her leige lord, to cement the friendship of the two islands, is of traditionary record.

Until within the past few years the ruins of one of Maui's famous heiaus graced the base of Kauiki hill, facing the village, a temple known as Honuaula, that marked history, erected by King Hua-a, who, stopping here en route from Lahaina in a raid upon Hilo, sought thereby to propitiate the gods to

aid his venture. The expedition proving successful he returned to Hana and built another but smaller one, known as Kuawalu, in the same vicinity, by way of celebrating his victories.

The district knew another King Hua at a much earlier period, who was of a far different type, being cruel and selfish in the extreme, whose evil deeds were so flagrant that nature revolted; the heavens refused its rain; a brazen sky parched the land and dried up the streams whereby famine stalked the land. Priests were put to death who ventured a protest at his acts. Retribution followed, says tradition, for, as a result, he and his people perished miserably. He died with no one to bury him, a great disgrace in ancient times, so that the saying: "Rattling are the bones of Hua in the sun", became a well understood proverb.

Kauiki's elevation is barely 400 feet, yet its hallowed estimation in the minds of the early inhabitants of the district gave it a mythical height, which has come down through the ages. So long ago we know not, the bards sang of it thus:

"Engulfed is lofty Kauiki,
Where Hanaiakamalama dwelt."

"Shooting up to heaven is Kauiki,
Below is the cluster of islands,
In the sea they are gathered up,
O Kauiki!
O Kauiki, mountain bending over."

The hallowed estimate alluded to may be admitted as the most reasonable basis for the ancient saying, that, "At the hill of Kauiki the heaven is nearer the earth than elsewhere, in fact so close that it could be reached by a good strong cast of the spear." "*Lani haahaa*", low-lying heaven, is its sobriquet to this day.

This impression of nearness has confirmation in the mythical story of Hanaiakamalama who leaped to the moon from its summit. She is said to have been provoked with her children, Puna and Hema, and to have gone up to the moon to live, but in ascending, her husband caught her by the leg and tore it off,

on account of which she was called "Lonomuku"—maimed or crippled Lono—as is seen to this day.

Hana is also famed as possessing, at times, strong surfing attraction, the indulgence of which sport developed such skill in its devotees as to invite the challenge of other locality experts. Several such contests are woven into some of the most popular of Hawaiian legends.

In the story of Laieikawai it is said that Aiwohikupua, on his way from Kauai to Hawaii touched at Hana during a surf-riding contest in which the chiefess of the district was the center of attraction, and was his excuse for considerable delay that he might participate in the sport with so charming and prominent a competitor which resulted in an entanglement that hampered him ever after for his perfidy.

Kiha-a-Piilani, visiting Hana incognito, was another who lost his heart to a charming contestant in surf-riding indulgences of some four days duration off Pueokahi, when Kolea-moku, daughter of the high chief Hoolae, at the close of the contest betrothed herself to the Waikiki expert, and in taking him "for better or worse" without seeking paternal consent she was disowned and disinherited. But when Kiha's incognito period wore away and the designing parent and daughter learned that—all unsuspecting—she had chosen the very one she had been pledged to, the chief relented, it is said, and all was forgiven if not forgotten.

From the realm of fancy to the stern realities of today, in and around Hana, new subjects of interest are opened up. One sees a scattered village amid a broad acreage of waving sugarcane—its sole industry. The plantation (now a corporation) ante-dates all others on Maui, absorbing two attempted rivals during its existence. The wooded hills back of the town catch the rain clouds that drift in with the trade-wind, giving the foliage and agriculture of the district a freshness and its streams limpid vitality. It enjoys also an invigorating air with its fresh breeze from off the sea.

Horseback riders are richly rewarded by the delightful scenery met with in an overland trip to Hana, whether by way of Nahiku and the Koolau road, for the forest and well-watered valley vistas which open up to view continually along the way, or, by way of the great crater of Haleakala and down through the Kaupo Gap, for the thrills of grandeur of scene above cloud-land, and immensity of the crater's area.

Though enjoying regular semi-weekly steamer service with Honolulu, Kahului and Lahaina, and occasionally other (including foreign) ports, yet a feeling of isolation possesses one in this section unless well employed. While Hana and the adjoining Kipahulu district permit of roads serviceable for autos, the gulches of Kaupo and Kahikinui districts beyond afford but horse-trails, though with some beautiful scenery on the way, particularly Wailua, until reaching the dreary stretch of road through Nu'u. The windward or Koolau road to Nahiku holds more attractions. Good roads are essential to the progress and development of any district, and hotels also for the encouragement and convenience of travelers.

OLONA, ITS CULTIVATION AND USES.

TRANSLATED FROM S. M. KAMAKAU IN THE *Au Okoa*.

THE olona or native hemp, [*Touchardia latifolia*, a shrub 4 to 8 feet high], was a material so generally required by the entire native population that it came to be of great value, and its cultivation was prosecuted on a large scale by farmers in sections suitable to its growth. Its bark furnished a fiber for twine unequalled for tenacity and durability for outfitting the many catchers of fish, because from it were manufactured not only long fish lines and nets, cord for canoe lashings and house framing, but durable ropes and other such needs of the people.

There were but few regions favorable for the growth of olona, therefore the farming people were not all engaged in its

cultivation. The olona grew luxuriantly in deep ravines on all islands, but was by no means common, as also in localities favored with heavy rain-fall, or in marshy lands. It did not flourish in arid regions, but on mountain sections covered with thick groves of banana plants, or where water dripped from the sides of cliffs, or other well-watered sections, as mentioned, there the plantings thrived best. They were particularly adapted to windward lands, there being but few favorable localities elsewhere. The would-be olona grower would first find a suitable tract of land for its propagation, and having selected a favorable spot would then destroy all shrubbery, cut down the trees and eradicate all weeds. The method of planting olona was by slips, similar to that of the wauke or paper-mulberry. Some grew erect, others branched a great deal, but these were low, increasing in number as the shrub grew. If one or two acres were covered with olona and thriving beautifully, its product was divided and known by several names, such as the chief's, the landlord's, and the cultivator's olona, according to the custom in those days.

After the olona had been planted out was the time when the cultivator should be very vigilant. During that period was the best time to destroy the weeds and other shrubs, for when the olona grew to be a fore-arm length in height, men could not enter the field, for then the plants will have formed an impenetrable thicket. Consequently the proper course for the planter was to be watchful and uproot the convolvulus and other vines lest they creep onto the olona shrubs and kill them. When the field matures it gives unbounded joy to the planter, being of uniform height, their stalks straight and leaves of even shade; and if it happened to be a level tract of two, three or more acres, they would afford a very pleasant sight, being close together, and the leaves beautiful and round.

The olona requires a year or more before it comes to maturity, at which time the leaves turn to a pale yellow. While they are of a dark green color the bark will not separate freely

from the stalk, for it has not yet become sufficiently woody. When it is time to gather the crop the cultivator erects long sheds for the housing of the product, and when these have been completed the olona scrapers, men, women and children, immediately set out in great number for the uplands to a location near some water-course, such a locality being the only suitable place for the preparation of the fiber. Olona was the means of securing food; the basis of fishing; the source of wealth, and hence the cure of poverty. When the tillers of the soil, the hog raisers, the dog feeders, and the kahala fishermen heard that the halaus, or shed-like structures, had been erected, and the bark of the olona shrubs were about to be stripped and scraped, it was then that one would hear the noise of the squealing pig, the howling dog, the crowing cock and other rumbling sounds, and witness the bundles of fish and other comestibles being gathered during the hemp's preparation for the grand luau. If it was a land of the first class the landlords furnished the pig, food and fish for the feast, such being the accompaniments of the olona's preparation in the olden time.

TREATMENT OF THE OLONA BARK.

The olona shrubs were first cut down until a pile had been gathered, then the bark would be opened up and the woody portion, the core (auhau), removed, which, with the leaves of the plant, were not allowed to remain on the field, but were cast away lest the growing ones be injured. On freeing the bark it was next taken and laid in water, but it must not be allowed to remain in soak too long, lest the bark become too soft and render the fiber brittle and thus become defective. After standing in water for a day, or maybe two days, the scraping should then be begun. The method of preparation of olona fiber was as follows: A narrow board a fathom and a half in length, about five inches in width, and a half inch or so in thickness is prepared, shaped tapering at one end so that it may be fastened to a stake driven in the ground to keep it firm, the upper end of the board resting on a block of wood

to give it some slant, to free the work from undue moisture.

The instrument with which to scrape the olona bark, called the *uhi*, is made from the back-bone of the turtle or its shell, the sides of one end being beveled to the sharpness of an adz, after which it is rubbed down with a piece of hard coral. In this way the uhi or scraper was sharpened. It was shaped and tested so as to fit closely to the board on which the olona was to be prepared, so that the fiber would not be rendered short and stumpy, provided, however, that the board also is smooth. Next, place the bark lengthwise on the board and with the scraper in the right hand, hold down the end of the bark upon the board. Then move the scraper forward and flatten the bark in front of it, continuing along in this manner until the whole bark has been scraped. The upper end of the bark being held down with the left hand, with the right hand cut off the other or lower end with the scraper, throwing that part away. After this, scrape the end off, whence the bark fits closely to the board. Return to the upper end and remove the particles of the bark that still remain, called lepo olona (olona dirt), after which, turn the fiber over on the other side and scrape off all particles, then turn it back again, scrape and shake it. When the dust has been shaken off on that side, which is now white, proceed in like manner with the other side until it is finished. Thus should all the others be treated, and when forty strips of olona bark, the number for an apana (bundle) have been finished, tie them up together. In like manner proceed with the rest of the bark.

The man, as also the woman, who is expert in this special line of work can finish from one to two *lau* (400 to 800 strips) in a single day. The preparation of the hemp requires skill, for the one who is not schooled in this vocation can not hope to make much progress therein.

In ancient times Maui and Molokai were the islands most noted for planting and preparing the olona for the making of twine for nets and cord, which accounted for the wealth of

those places. On entering the sheds wherein olona was prepared, the strips of fiber would be seen hanging down like so many water-falls along precipices, or streams falling from the roofs of the sheds like wavy hair in their rippling appearance.

TWINE AND NET-MAKING.

The making of the net was a very important task of the ancient Hawaiians, for such calling was held in highest esteem. Maiai was the originator of net-making, wherefore the men who followed this special vocation were guarded by the most stringent rules governing them, and all persons not engaged in the occupation were prohibited from approaching the workers, lest they should be pierced through with the shuttles, since the eyes of the workers were intent upon the mesh of the net.

Net-makers would first see to obtaining a sufficient supply of the olona fiber for their contemplated work. For this they would take as a medium of barter a number of hogs of good size to the shed where the olona was prepared, and he would then receive many hundreds of olona bundles, and if he desired more, he must give in exchange such other valuables as dogs, small fish ponds, patches of taro, or of other vegetables. If it was olona fiber of the first class, only the chiefs, or lords of the ahupuaas or districts, had the power to procure such for manufacture into twine; that of the commoners being secured only through much labor, and therefore obtained only in accordance with diligent personal effort.

The women were the ones who twisted the fiber into twine and cord for nets, and their services were requited with pigs, fish, vegetables, skirts, or such other articles as might be desired by them. The very large nets called naepuni, also those known as nae, puni, and aa, were made of very fine cords, sufficient for which required a year or more perhaps for its twisting and completion. The naepuni was of very fine and delicate texture, and the spacer therefore was a suitable small piece of wood, the hi'a or shuttle being of small size also.

Cords for the net of the nukunuauula and makahi were a little heavier than those of the nae, the meshes of which also required the use of spacer. The cord for the malua net was still larger, with a mesh of two fingers' width; that for the makolu, of three fingers' width, was larger still and stronger. Thus the cord increased in size, as in the case of the mahae, the malewa, and the hihi, and the cords of these were much like that used in making the calabash-nets, and for long fish lines.

In making the mahae and the malewa nets, they did not require the use of the shuttle since only the ball of cord was necessary, but those who did not know how to space with it might, however, wind the cord around the shuttle. A piece of wood was the best spacer, one which had been so made as would best fit the case, for that was the contrivance which kept the meshes of the net uniform, as it entered this and that mesh through which the shuttle was thrown with the cord. The spacer of the net was called the haha (feeler). As a rule net-makers were skillful, swift and painstaking.

NEW HAWAIIANA

"Our Hawaii," by Charnian Kittredge London, published by Macmillan & Co. the latter part of 1917, is a delightfully written book of some 350 pages descriptive of life in Hawaii as experienced by the Londons in their several visits. The work is freely illustrated from grouped photos, and is remarkably correct in Hawaiian names, local expressions, and historic narrations for a visitor, evincing a care in its preparation which entitles the author to the reader's confidence. A charm that impresses one throughout its pages is the spirit of appreciation of the land, its climate and people under all circumstances, so like Isabella Bird.

"The Pilgrims of Hawaii," by Rev. and Mrs. Oramel Hinkley Gulick, published by Fleming H. Revell Co., is "the story of the transformation of a nation," being a narra-

tive history of the American mission to, and in these islands, verified by missionary journals and letters from 1820 to 1859. The result of these labors, in which the writers have shared all through their long life—and are still engaged—(though modestly rarely mentioned), covering the religious and educational work as also the political, agricultural and commercial progress of Hawaii, are summarized and brought down to date. The book furthermore is well illustrated.

Part III, completing the first volume of the “Fornander Collection of Hawaiian Antiquities and Folk-lore,” which form Vol. IV of the Bishop Museum Series, also issued at the opening of 1918, with a copious index of 52 pages of the volume’s contents, a convenient reference to this long hidden mine of Hawaiian legends and traditions of over 600 quarto pages.

This was followed by No. 1 of Vol. VII in the series of Bishop Museum Memoirs, being the second supplement to “Hawaiian Feather Work,” by Director Wm. T. Brigham, Sc. D. In this issue Dr. Brigham has evidently given us the last word on the subject, which embraces not only the cloaks, capes, helmets, wreaths, malos, kahilis, hats and idols in the museum and in private hands in these islands, but in the various museums of the world as also in private hands abroad, with an historic account of each. The revised list shows 117 cloaks and capes of the world, 52 helmets, and 12 Kukailimoku idols.

The treatise is freely illustrated from photographs of the originals, and its interest and value is enhanced by four full page plates of famous cloaks in the colors of the originals.

Part I of the second volume of “Fornander’s Folk-lore”, of 225 quarto pages, in the uniform style of the Bishop Museum Memoirs, comprising fifteen legends of the islands, issues as we go to press.

“The Hawaiian Romance of Laieikawai,” with introduction and translation by Martha Warren Beckwith, a large 8-vo. of

some 380 pages, appeared during summer from the Bureau of American Ethnology, Washington. In this work Miss Beckwith places all students of Hawaiian folk-lore under deep obligations for her painstaking service in bringing out the first complete translation of what has been termed the finest romance of the race. That the labor thereon has been one largely of love is evident by the many references and notations, as also the comparative study for the introduction, which presents not only the features of the story, its writer and his characters, but treats of the art and style of Hawaiian composition, with copious extracts illustrative of the characteristic features, which shows a rare familiarity with the lore of her land, a benefit from exceptional reference opportunities.

In "Personal Reminiscences of a Well-Known Early Kauai-Honolulu Family," Malcolm Brown has written his recollections of the advent of his parents, Mr. and Mrs. Thomas Brown, to these shores, their experiences, with their connections with several other prominent residents in business and official affairs in their day, which glimpses interestingly much of the social conditions of Honolulu, that dates back to the early 'fifties. It is in pamphlet form, comprising 72 pages.

LANAKILA CHURCH RUINS, HAUULA

SOME interest has been awakened of late in the ruined stone church at Hauula, in the Koolau district of Oahu, judging from the inquiries made for its history. Its commanding site adjacent to the road, just beyond the railway station, makes it the prominent object in the village landscape, which attracts the attention of visitors passing through the district.

As the result of not a little investigation, rendered necessary through the few present residents familiar with the early church-efforts of windward Oahu, and the scarcity of records thereof, the following brief facts are gathered together relating to its history. The people of the district differ widely in their

impression of the time of its origin, though agreeing on the parties instrumental in its erection.

The church is 96 x 34 feet, inside measurement, with walls 13 feet high and 2½ feet thick on a foundation of some 4½ feet, located on a knoll of land known as Helumoa. This name, meaning "count chickens," suggests connection with Kamapuaa, the traditional swine-god, whose depredations began in this neighborhood in the robbing of his uncle's chicken coop, and his escape by way of the celebrated Kalinwaa falls in the adjacent valley, a feat still dilated on by the villagers.

There are hardly any of the village fathers left, so it was found difficult to ascertain just when the church was started and when completed, but from careful inquiry and search its origin is found not as remote as some have supposed, evidently not earlier than 1852, when Rev. J. S. Emerson of Waialua (who had the pastoral care also of his neighboring districts, Waianae and Koolauloa), reported the first movement in the project, "the collecting of materials for the building of a church in Koolau." The following year, 1853, the progress of the work is shown as "the church walls having been laid up in mortar, the building well roofed and the floor being laid." This was its condition in the summer of that year. At its completion, sufficient for services, probably the latter part of the year, a grand luau or native feast was given the public by way of celebrating the opening, to which Mr. W. C. Lane, father of our ex-mayor, was a generous contributor. Rev. Mr. Emerson, as stated, was its first pastor, and one Sam Kahele the first treasurer, who also acted as a lay reader in the pastor's absence.

In 1854, Hauula was favored with a pastor of its own in the person of Rev. M. Kuaea, who stayed by it about ten years when he was called to a wider field, to become known as Hawaii's Henry Ward Beecher. In his reporting for 1861, "contributions to aid in completing the church" is noted, which indicates that it had several years use unfinished. The succes-

it may be said that Hawaiian thought is somewhat elliptical, moving about two centers. When the Hawaiians are thinking about the nature of things the notion of *mana* is fundamental, but when the origin of things is concerned the notion of *po* appears to be uppermost. The preliminary question then is what did the Hawaiians mean by the terms *mana* and *po*. Remembering Aristotle's wise dictum not to pretend to greater accuracy than the subject matter will allow, *mana* may be taken as the notion or perhaps concept of psychical power, motion, force, energy, will, or any activity that is super-normal, or arouses in man an extraordinary emotion, feeling, thinking or willing. It reminds one of the wonder, awe, curiosity, which Plato and Aristotle put at the root of philosophy. The term *mana* and its cognates have a remarkably wide currency and almost always they are connected with human thinking. In the Hawaiian language *mana* means psychical or mental power; *manao* means "to think"; *mananao* is "thought"; *manawa* is used for the "emotions" and "feelings". In fact the gamut of *mana* extends from what we call life in a vitalistic sense to what we call god in a pantheistic sense. It is a purely psychological term which never refers to objects of sense perception although such objects may possess *mana*. Every recognized specialist has his *mana*, the chief, the priest, the house, the canoe, and the temple builder. Concretely *mana* may be inherited, increased, diminished or lost. Abstractly *mana* may be the property of a tribe, or a god or a *summum species* in which all things share and to which all striking activities are related. The criterion of *mana* was pragmatic. It is what it does. If it fails to do what is expected it is no longer *mana*. Thus the Hawaiians have deposed chiefs and even gods. In the great reformation of December, 1819, when the systems of tabu and sacrifice were overthrown it was explained that the old order had lost its *mana* and that the new order had a superior *mana*. It is public opinion or thought and at the same time it is divine or supernatural. It is a *vox populi, vox dei*—a notion

somewhat similar to the uses of Toth, Chochma, Vâch, Tao, and Logos. In ancient Hawaii the term *po* has also various meanings, such as night, darkness, chaos, impotence, negation, non being and sometimes the place of departed spirits. In Hawaiian mythology it seems to have two or three quite distinct meanings. It is a night or chaos which is an inert and helpless nothing, or it contains within itself the potentiality of becoming, or it is wrought upon by god or gods as something objective. If it does not contain within itself the cause of things it is a condition without which things cannot arise or a background on or in which they arise. *Po* may also have been regarded as a neutral in which the sexes were generated and differentiated by *mana*. This would be in harmony with the *Kumulipo* chant and with many of the myths of Polynesia. There is a general belief that everything in nature is male or female. Hawaii had its Empedocles or Camararius in the person of Auwe, an attendant upon the great Kamehameha, who, according to Mrs. Judd, taught sex differentiation in the vegetable world. There are two very remarkable Hawaiian cosmogonic myths which have not been brought together for the purpose of throwing light upon the nature of *mana* and *po*, and upon the different processes by which all things came into being. These two song myths apparently present two quite distinct metaphysical views both as to the nature and origin of things. Without discussing the question of priority in time as between these two myths let us glance at the more naturalistic view as set forth in the *Kumulipo* chant which Bastian regarded as "one of the most wonderful creations of the human spirit."

Fragments of evolutionary cosmogonies are common throughout Polynesia. Thus in Samoa we have the striking myth of the becoming of things through the struggle for existence. Fire fights with the rocks and is extinguished; the large rocks fight with the little rocks and are overcome; the grass attacks the the little rocks and wins but is overcome in turn by the shrubs

which are later beaten by the vegetable creepers, and these rotting give rise to maggots which give rise to animals and to men. The beautiful and familiar Maori story of Rangi and Papa is another effort to give a naturalistic setting to the becoming of things. David Malo, a native of Hawaii born about 1793 and writing his *Hawaiian Antiquities* about 1835, is surprised at the conflicting accounts of the origin of the islands and of man. He divides these into two classes, those which refer beginnings to male and female principles or persons, and those which refer beginnings to natural causes, remarking: "Perhaps this is the best solution." The Kumulipo manuscript which Bastian brought to light from the library of King Kalakaua at Honolulu early in 1880 surpasses all in its philosophic outline and detail.² The transcription of this legend must have been made after 1820, as before that time the Hawaiian language was not reduced to writing, but the antiquity of the content is witnessed not only by its being sung to Captain Cook but by its antique text, the decipherment of which received little aid from Andrews' *Hawaiian Lexicon* and still less from Hawaiian scholars. While not all the names of insects, birds, fishes and trees can be identified, the general outline is clear. According to this chant the beginning of things is hidden in Po, a dark, impenetrable chaos, which originated slime and after a very long time gives rise to dual principles, the male, Kumulipo, "the root of the abyss" and the female Poele, "the dark night". These impersonal principles, activities or energies, first produce zoophytes; coral insects from which was born perforated coral; worms which gathered mud

² Adolf Bastian: *Die Heilige Sage der Polyneser*, Leipzig, 1881, s. 61-121.

Edward Tregear: *The Creative Song of Hawaii*, Jour. Poly. Soc., Vol. IX, 1900.

Th. Achelis: *Ueber Mythologie und Cultus von Hawaii*, Braunschweig, 1895.

R. B. Dixon: *Oceanic Mythology*, Boston, 1916, pp. 15-17.

Liliuokalani, *Queen of Hawaii*: *An Account of the Creation of the World According to Hawaiian Tradition*, Boston, 1897.

David Malo: *Hawaiian Antiquities*, Tr. and Ed. by Dr. N. B. Emerson, Honolulu, 1898, pp. 20-25.

into heaps; star fish whose children were starry. Then lower forms of plant life appear and all living things multiply. The land rises and a veritable struggle for existence goes on in which the higher and stronger plants and animals feed upon the weak, but without extinguishing them. Of all this the swimming octopus, the sole survivor of a former world, is an observer. At the close of the first period the sway of Kumu-lipo passes to the atmosphere or possibly ceases, and in the second period the dual agencies of becoming are the black night and the wide-extended night which bring forth leafy plants and the variegated insect world of butterflies, locusts, ants, etc. Then birds of various kinds arise and fly through the air, and finally the first shimmerings of dawn appear. In the third period male and female principles still rule but under different names indicating new modifications of po. Here fishes and wonderful things of the deep appear and the blowing whale swims about the waters. The fourth period presents the dim and misty appearance of the sun under which creeping monsters move about on the slimy earth. The turtle and the useful plants appear, and in the effort of new births all nature groans and is full of tumult. The convulsions of nature continue in the fifth period and the highest animal known to the ancient Hawaiians, the swine, is produced. Time is now divided into night and day, and the conditions of knowledge and ignorance, of memory and of the useful arts are present. The sixth period is given to the genesis of mice on the land and dolphins in the sea, while the seventh period is one of psychical evolution in which practical wisdom was carried into proverbs, and the formulae of magic were devised for the service of man in his struggle for existence. Observation through ear and eye were greatly developed and thought was deepened. In the eighth period raging and ruthless nature comes to an equilibrium and joyful peace (Lailai) prevails. "Born, man as a leaf, born male and female. Born the hidden gods." But the female principle takes the lead in the first

woman Lailai. Then appeared Kii (man), then Kane (god), then Kanaloa (monster) and then through Lailai in sporting, laughing alliances with them arose the human race, or the Hawaiian people. Malo, who probably represented a common interpretation of the Kumulipo chant, says the first human being was a woman, named Lailai and that her ancestors and parents were of the night. Ellis, in his "Tour" notes that some of the Hawaiian priests hold that the first man was made or produced by a female deity. In this chant the lower animal life precedes vegetable life, and there is an implication that man was born male and female and was later differentiated. It is evident that the chant is an attempt at a naturalistic explanation of the world and that great stress is laid on the forces which are intrinsic to *po*. Still it is not an evolutionary or transmutational account, although its development is from the simple to the complex. Not only is there no suggestion that one stage gives rise to the succeeding stage but the names of the male and female principles are changed, indicating the intrusion of new or modified forces acting as creating demi-gods. The refrains indicate that water is life to plants and fishes, while the "Io" or "eggs and Io" are life to birds. If there is any thought of evolution or of emanation, it is only caught as a *lo* here and a *lo* there in time and space. The myth evidently belongs to the same class of serial developments as are found in the thought of the discontinuity of species represented by Plato, Leibnitz, Schopenhaur, and Comte. Still in this chant "man is born as a leaf", and in another version the palai fern is spoken of as shooting forth leaves of high chiefs. The stages of the myth suggest some misplacement, as in the present form two periods of preparation for the future of man are presented before his appearance. This would be a teleology more extraordinary than that of Wallace in his accounting for the large brains of primitive peoples as being a preparation for future needs. The later periods should be in the order of six, eight, five and seven as five and seven evidently deal

with the technical and mental development of man. In another version of this myth, as Thrum has pointed out, man was born in the dark and woman in the age of bubbles of the third period. In song myths there seems to be considerable freedom of transposition and verse divisions. The most striking thing about this myth is the suggestion that the gods appear after man, thus indicating a continuous creation extending to the superman and that all things, from zoophyte to god, lie within one frame of becoming. Equally suggestive is the appearance together of Kane, the good, and Kanaloa, the evil, which may have a reference to the most elementary dualism in human nature. Another association is possible, as in one or two ancient songs, the east is called "the great highway of Kane", while the west is regarded as the way of death, the way of Kanaloa, the god of the underworld. The absence in this chant of any reference to the great gods Ku and Lono is probably indicative of its naturalistic motives and of its antiquity.

Over against the quasi naturalistic view of the Kumuipo chant is the Kumuhoona chant, which is presented by Judge Fornander in his classic work, *The Polynesian Race*.³ For more than thirty years, with a corps of native assistants, he studied Polynesian problems and especially the ancient history of the Hawaiian people. Collating the different versions of the Kumuhoona song of creation, Fornander finds that the old Hawaiians at one time believed in and worshiped one god comprising three beings called Kane, Ku and Lono, equal in nature but distinct in attributes; that they formed a triad commonly referred to as "the one established", and were worshiped jointly under the mysterious name Hika-po-loa, while another ancient name was Oie, signifying "most excellent, supreme".

³ Abraham Fornander: *An Account of the Polynesian Race, Its Origin and Migration, and the Ancient History of the Hawaiian People to the Times of Kamehameha I.* Vol. I, 2nd ed., 1890. pp. 61, etc., 211-213.

Sheldon Dibble: *History of the Sandwich Islands' Mission*. 1839. p. 135.

Thomas G. Thrum: *Fornander Collection of Hawaiian Antiquities and Folk-lore*, Bishop Museum Press, Honolulu, 1916-1917.

This triad existed before, in or from po. By an act of will these gods dissipated po and light broke into space. They created three heavens as their several dwelling places, also the sun, moon, stars, and a host of ministering spirits. Last of all they created man in the likeness of Kane, making his body of red earth and the spittle of the gods, and his head of whitish clay brought from the four ends of the world by Lono. Then the three gods breathed into the image, called upon it to arise, and it became a living being who was named Kumuhonua. Later, woman was created from the side of man while in slumber which, like the Kumulipo myth, suggests that man at first was androgynous or bi-sexual. Another version of the same chant notes the cyclical view of world history in saying that Kane destroyed the world by fire and then recreated it. Fornander remarks, "Through all the Polynesian cosmogonies, even the wildest and most fanciful, there is a constant, underlying sense of a chaos, wreck, po, containing all things and existing previous to the first creative organization; the chaos and wreck of a previous world, destroyed by fire according to the Hawaiian legend, destroyed by water according to the Samoan legend; a chaos, ruin or night po, in which the gods themselves had been involved, and only in virtue of their divine nature, after continued struggle, extricated themselves and reorganized the world in its present pattern." Still another tradition relates that Kanaloa, the evil one, was present at the creation of man. Jealous of Kane's work and failing to repeat it, he tells Kane, "I will take your man and he shall die." It is interesting to note that Kane is the only god which appears in both chants. In the former he is evolved or created while in the latter he is the creator. Kanaloa also appears in both myths; in the former as a monster, and in the latter as the evil one, the opponent of Kane and of man. In early tradition, Kanaloa is the spirit of opposition; in folklore he is the god of serpents(?), lizards and fishes. There is no indication in Hawaiian tradition that Kane and Kanaloa represent a con-

flit between light and darkness but rather a conflict between good and evil as regards man. His later enrollment among the gods and his companionship with Kane may be due to this moral dualism. The incompleteness of the Kumuhonua genealogy is striking, as no mention is made of the creation of the vegetable and animal kingdoms, to which so much attention was given in the Kumulipo chant, but Thrum has shown that the prose versions mention hogs (puaa), dogs (ilio) and lizards (moo) as having been created by Kane. The similarity of this myth to that of biblical genesis has raised some suspicion of missionary gloss or influence. This appears as entirely gratuitous to one acquainted with the mythology of Polynesia and the widespread elements of the biblical myth. There is not a detail of this chant that cannot be duplicated in early Polynesia. Hewahewa, the last of Hawaiian high priests, told the early missionaries in 1820 that the only difference between his god and theirs was that theirs was "fixed on paper" and Dibble, one of these early missionaries, remarks: "When the Sandwich Islanders heard the names, Jehovah, Jesus Christ, and the Holy Spirit, they substituted at once the names of three of their former gods." A striking parallel of this direct transference of thought is found in Southern Polynesia, where, according to W. W. Gill in his "Myths and Songs", the natives transfer most appropriately and beautifully the name of Eo-Ora, the living god, to Jehovah, as His worshipers never die. Considering the testimony of Hawaiian scholars from Fornander to Tregear, and the high compliment which the latter pays to this myth, there seems to be no good ground for doubting that it is a veritable ancient product. Still it is to be noted that Malo did not refer to this chant in his Hawaiian Antiquities. It must have been an oversight like that of his want of reference to the remarkable Hawaiian methods of irrigating by ditches. Two Hawaiian stories of creation may be passed by for, as compared with the Kumuhonua chant, they illustrate the difference between mythology and folk lore. The tradi-

tions to which we refer are the well-nigh universal one of the bird laying an egg on the primeval waters which, bursting, gives rise to the world, or to Hawaii nei, and that of Papa giving birth to a calabash, the different parts of which, being distributed by Wakea, become the heavens and the earth and all their furniture.

The metaphysical content of the Kumuhonua myth is not altogether clear from its presentation and requires some comparative reference to similar myths in other parts of Polynesia. That the three gods of Hawaii were worshiped as different aspects or attributes of a one supreme god, there can be little question. The old Hawaiian ritual after mentioning the gods by name, generally beginning with Kane, concludes with the henothetistic or monotheistic refrain: "He is god. It is true. It is so. He is the true god." That the nature of this god, whether Hikapoloa or Oie, is the supreme power and at the same time the most excellent, thus having in concrete human experience, both a logical and a moral meaning, may be gathered from the body of Hawaiian myth and folk lore of which the familiar stories of Owaia and of Maui the Hawaiian Prometheus, are illustrations. The Hawaiian "supreme" is the life in which all things participate and at the same time, it is the source of all mana or special powers and excellencies. We may gather light on this point by a reference to the Taaroa of Tahiti, and the Io of the Maori.⁴ Io, sometimes regarded as the Oie of the Hawaiians, is the pith, core, essence of things, the great originator, the all-father, who pervades space and time, has no residence, cannot be localized, and whose name is generally tabu. Still, prayer is addressed to him as in the fragment; "whilst I my offerings make and chant my sacred song to Him, the one Supreme." The nature of Io appears to

⁴ J. A. Moerenhout: *Voyages aux îles du grand océan*, I. 419-423.

A de Quatrefages *L'Espece Humaine*, 361, etc.

Abraham Fornander: *The Polynesian Race*, I, 220-223.

Elsdon Best: *Spiritual Concepts of the Maori*, *Jour. Poly. Soc.* IX, 174. *The Cult of Io*, *Man*, Vol. XIII, 1913, pp. 98-103.

Edw. Tregear: *The Maori Race*, 1904, pp. 432-298.

be mana in the sense of thought for, according to many authorities, in the oldest Maori legends of creation, thought first arose in the primordial night as the most subtle of all forces, then creative desire arose and, last of all, matter. As the genealogies show a close relation of Hawaii and New Zealand, so the legends show intimate commercial relations as early as the twelfth century between Tahiti and Hawaii. The Tahitian Taaroa is hymned in the most remarkable language.

"He was, Taaroa was his name,
He abode in the void, no earth, no sea, no sky.
Taaroa calls but naught answers,
Then alone existing he becomes the universe.
Taaroa, like the seed ground, Taaroa rocks foundation,
Taaroa, like the sea sand, Taaroa, widest spreading,
Taaroa, light forth breaking, Taaroa, rules within us,
Taaroa, all around us, Taaroa, down beneath us,
Taaroa, lord of wisdom, He created the land
Of Hawaii, Hawaii, great and sacred."

In all the famous literature of pantheism, nothing excels the simple beauty and the comprehensive thought of this song of a primitive people in the heart of the Pacific ocean. It reminds one of the thought of Xenophanes: "All eye, all ear, all thought in God," and of the lines of Aeschylus: "Zeus is the heaven, Zeus the earth, Zeus the air, Zeus is the universe and all besides." But more than this it reaches out through the philosophy of the most civilized people, through Plato and Plotinus, through Bruno and Spinoza, through Fechner and Paulsen even to our own day. Fornander remarks that this chant agrees thoroughly with the Marquesan and Hawaiian poems on the same subject, and that there can be no doubt of its great antiquity.

When one turns from these high thoughts of the supreme and excellent one to its attributes in the triad of Kane, Ku, and Lono, one experiences about the same feelings and difficulties as in passing, say from Christ's teaching about God to the wranglings of theologians about the Trinity and the nature and functions of its three persons. It is what happens in metaphysics when one seeks to pass from general notions to cut and dried concepts. Then, too, folk lore is always apt to play havoc

with the more reflective mythology and among people without a written language and with a vanished priesthood the role of folk lore persists when mythology grows pale or disappears. "Scattered among the Polynesian islands," says Tregear, "are fragments of belief in which every variety and eccentric inversion of the attributes and positions of the early gods toward each other may be found." Even Tangaroa, among the Marquesans, became the evil one, as also among the Hawaiians Kanaloa the evil one become one of the gods. It is quite probable that these gods are one and the same, playing a most confusing moral role throughout Polynesia. These and similar movements of thought raise an interesting problem in human attitudes. In southern and central Polynesia, Taue, Rongo and Tu, or Kane, Lono and Ku are often thought of as representing light, sound and stability, but in Hawaii the prevailing conceptions are slightly different. Kane is the creating god, the originator and founder of the world, the father of men, the heavenly father. But above all he is the "god of life", "god of power", to whom "the heaven and earth are sacred". It is probable that before the twelfth century the prevailing worship of Hawaii was Kane worship. Lono is a friendly providence directing the elements and human affairs whose ritual was mild, being chiefly concerned with giving freedom to mortals through purification and pardon of sins. As Thrum has pointed out, the great god Lono is probably not to be confused with Lono, the deified hero in whose honor the annual games were held, and whose return was supposed in the appearance of Captain Cook. Still, considering the kind of worship that was accorded to Cook, the distinction between these gods is not quite clear. The older Hawaiians, including Queen Liliuokalani, as shown in her introduction to the Kumulipo chant, believed that Cook was identified with Lono, one of the chief gods. Numerous traditions, as well as the story of Captain Cook, as the returned Lono, show that he was a deified hero. Ku is referred to as architect and builder, and is regard-

ed as a severe, exacting, jealous god, who rules by prescriptions, and demands temples, and sacrifices of both animals and men. The chant of Kualii opens with the words: "A god is Ku, a messenger is Ku from heaven, a foreigner is Ku from Kahiki." Ku means east or eastern and Kahiki-Ku means a "foreigner from the east". Ku may be connected with the bloody rites of Mexico which possibly came into central Polynesia and through Paa'o were carried to Hawaii about the twelfth century. In folk lore Ku is the dog slain for his cruelty. Although Ku had his special priesthood, it is fairly clear that he never had a deep hold upon the Hawaiian people save through their fears, and through his intimate relation to the general tabu system of government control. His relation to Hawaiian life and religion was not wholly different from that of Jehovah to the more strenuous form of New England Puritanism. It was this god with his tabus and human sacrifices that the Hawaiian voluntarily repudiated and overthrew in the reformation which culminated in the battle of Kuamoo, December 20, 1819; while long before this the episode with Captain Cook in 1778 seems to have engendered profound scepticism in regard to the Lono cult.

If the above account is approximately correct, the Hawaiian mythology shows both free constructive imagination and differentiation. The latter element is fully borne out by the multiplication of lesser gods, each of which has its particular mana having some relation to individuals. Whether seriously, or from a sense of humor, which was keen in the Hawaiians, the lesser divinities were often lumped together in worship as is shown by many fragments. Thus in an old chant Lipewale addresses, "Ye forty thousand gods; Ye four hundred thousand gods." Their mythology is also a warning against the common supposition that a particular primitive people must have homogeneous beliefs. Here is a people isolated, few in numbers, of the same race, language and environment, with two or more very distinct and elaborate beliefs regarding the

nature and origin of things. The cake of custom has been greatly overdone, and the freedom and facility of the primitive mind too much ignored. Still, this freedom has, metaphysically, its limitations to the emphases and fusions of the human, the divine and the cosmic motives. All three of these motives are present in Hawaiian thought and while the cosmic is weak, one must not overlook the fact that a theory of world cycles is present in both the Kumulipo and the Kumuhonua chants, thereby suggesting a quasi mechanical view. Anthropologists and ethnologists have often been too anxious to carry through preconceived theories, and the spirit of system has been too imperious. It is not too much to say that the old Polynesians, and especially the Hawaiians, show great freedom in speculation and show the rough outlines of all schools of metaphysics. The various relations in which they placed mana and po clearly suggest what we call dualism, materialism and spiritualism. It is evident that at least the Hawaiians, Tahitians and Maoris cast their lot with a spiritualistic monism in which thought or mana was the first principle, expressed or implied in all the cosmogonies and that this principle was always a generalization, *ex analogia hominis*, from human activities, such as thinking or willing, or even as respiration, or speaking, or reproduction, or sleeping and waking. This might imply a dualism within mana but this is not the prevailing Hawaiian thought. Mana as a notion or concept is activity without definite, moral or logical qualities, but takes them on only practically in po, persons, things, gods and demigods. Every extraordinary power is explained by mana but this particularized mana is expected to justify itself in experience or a mistaken reference is suspected. The question whether the Hawaiian notion of mana is a personal one, is solved by remembering that all their thought is evolutionary, not involuntional, running along the analogies of inner experience; by observing that in the Kumuhonua chant, the members of the triad are personal and fuse henotheistically into the notion of a superpersonal; and that in

Kumulipo genealogy the male and female principle becomes male and female persons just as soon as anything is done; and that while the Hawaiians were in doubt as whether the tap root was male or female, they had no doubt as to its personality in the sense of a thinking, feeling, and willing something. Although living in the midst of volcanoes, earthquakes and tidal waves and being experts in navigating their canoes by the stars, and loving plants and animals with a curious devotion, there is a strange absence in their mythology of nature worship and of the influences of environment. Among primitive peoples, they may properly be called, The Humanists.

JAMES B. CASTLE—BENJAMIN F. DILLINGHAM AN APPRECIATION.

HAWAII was called upon this past year to mourn the loss of two of her best-known public-spirited citizens, James Bicknell Castle, and Benjamin Franklin Dillingham, both of whom passed away within a few days of each other early in April; Mr. Castle suddenly after but a brief illness, while that of Mr. Dillingham had been somewhat expected.

In the death of these two foremost practical builders of Hawaii's enterprises, the business community has lost men of vision and faith; men who were courageous in their aims to achieve big results through the benefits to others. In this they were singularly alike, the various projects they promoted or entered into, to encourage industrial, agricultural and other effort being of a corporate nature that others might share in the successes they had the faith to foresee; taking the laboring oar in each project till clearing the difficulties that are invariably met with in the promotion and development of new enterprises of magnitude.

Mr. Dillingham's experience in establishing the Oahu Railway that would have discouraged ordinary mortals has been often told, but his arduous effort and strong faith on pushing that project through to a successful issue led the way to the establishment of new and enlarged agricultural enterprises that are classed among the best dividend-paying concerns of the islands; hence, beside the products marketed, land values have increased, all of which now awards the government a large annual tax revenue. In these Oahu projects Mr. Castle was an early courageous co-laborer, in engineering and developing the Kahuku Plantation to success ere relinquishing controlling interest, subsequently encouraging the agricultural possibilities of the Koolau districts and establishing a small railroad from Kahuku to as far as Kahana, to facilitate the labors of the producers and the marketing of their products; a natural feeder to the Oahu Railway.

Few Honoluluans were aware of the obligations they are under to Mr. Castle for the comfort and convenience of their Rapid Transit service by his bold step at a critical stage in its career that placed it on a basis for the success which he foresaw. Another bold venture, and of larger magnitude, was his purchase of the Spreckels' sugar and commercial interests on Maui, said to be at a cost of \$2,000,000, which to-day is ranked among the best dividend-paying concerns in the islands. A man of ideals, he desired to see a better element of introduced labor for the development of Hawaii, and at his own expense sent for and brought in the Russian colony of Molokans from Los Angeles, and settled them, not on properties of his interests, but at Kapaa, Kauai. Unfortunately, through disruption among themselves they proved a disappointment and gradually drifted away again.

An undertaking of wide scope characteristic of Mr. Castle's enterprise is evidenced by his projects on the island of Hawaii in opening up and demonstrating the possibilities of the ohia and koa forests of Kona and Puna for commercial uses, and the practicability of cane-growing through Kona, with the

central-mill idea, to meet the peculiar conditions of that district.

And aside from his business activities he was likewise eminent in literary and artistic tastes, possessing a fine library which was his delight in spare hours for the recreative indulgence of his intellectual nature.

Of Mr. Dillingham, when his various Oahu projects were well advanced, which included wharf and other improvements to facilitate shipments and enhance the interests of the port, his next venture was in securing the Eleele Plantation, on Kauai, from which a new concern resulted in the formation of the McBryde Sugar Co. for an increased planting area, with new and capacious mill for same.

Ambitious for still greater achievements he struck out boldly for the floating of the Hilo Railroad project for the enlargement of the resources of that district, and, despite setbacks and disappointments in securing foreign aid, through our political upheaval, he was again successful. The opening up of the Olāa tract of land, and interest of its new settlers in coffee culture rendered Hilo's outlook roseate, especially with the commencement of the breakwater for the protection of its spacious harbor and encouragement of shipping, but when failure stared in the face of coffee-growing effort, and business interests connected therewith became clamorous, it was Mr. Dillingham who stepped into the breach and with a few staunch allies took over the unprofitable coffee lands, and organized the Olāa Sugar Co. whereby the late owners received far more than could have been realized under forced sales. The extensive area to be cleared and planted to cane and the erection of a modern mill adequate for same required large capitalization.

The construction of the Northern line Hilo railroad was his next ambitious effort to penetrate the broad fields of Hamakua and open up new possibilities and a means of marketing its products. This branch called for engineering skill of the highest order for its construction along the bold coast; bridging

gulches and ravines, tunnelling and cutting through hills, all of which are a marvel to visiting experienced railroad men of the mainland. In spite of delays through labor conditions, difficulty in having orders filled, and increase in cost of material, the road was carried through to completion by Mr. Dillingham's courageous energy, for those coming after him to reap the reward.

In Sunday-school and church work, as also in Y. M. C. A. and educational work, he was an active participant. Large-heartedness was characteristic of him; he was ever helpful to others, and it is said of him in his benevolences that every institution, educational or eleemosynary, in the islands of his knowledge were recipients of a generous sum before his death.

In the developmnt of the latter projects of these two princes of industry, though unable to reap pecuniary benefits therefrom, they nevertheless saw their labors had not been in vain, but so established for others to profit thereby, proving themselves public benefactors all through their career, and leaving a memory and example which is an inspiration for others.

And still another of the foremost men of our island community has been called to his reward, of whom the following fitting tribute appeared in the *P. C. Advertiser* of July 26, 1918:

In the death of Joseph Platt Cooke the community is called upon to mourn the passing of another foremost citizen, a man who, until a year ago, when his concentrated efforts brought a physical breakdown, was in the forefront of the commercial and philanthropic work of the Territory.

Mr. Cooke was almost the first to whom many turned when some project for the general good of the community was in need of financial help, and no good cause ever went to him for assistance in vain. He was not an indiscriminate giver, but once satisfied of the merit of the project his generosity usually set the pace for others. An endorsement of a man, a policy or a project by J. P. Cooke stamped it as bona fide and worthy.

such was the esteem in which his judgment and sincerity was held by the community at large.

A descendant of an early missionary family, Mr. Cooke was connected by ties of relationship and early friendships with all the principal kamaaina families of Hawaii, while his geniality, his straightforwardness and his sterling honesty in word and deed made him a most popular figure with the later comers to the Islands.

His death is a distinct loss to Hawaii and the mourning over his sudden death will be widespread and sincere.

POETRY OF THE POLYNESIANS.

BY GEORGE W. STEWART.

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AMONG the ten thousand coral fringed islands whose shores are whitened by the breakers of that vast ocean rolling between the Orient and the Occident, lie undeveloped mines for the literateur rich as Pactolian sands. The pioneer prospectors in this little-known field have unearthed many treasures worthy of careful preservation, and located outcroppings that indicate the existence of extensive leads of hidden wealth. And when these shall have been worked, the world that has been charmed with the German Nibelungen, the Finnish Kalevala, the Ramayana and Mahabharata of the Hindus, and the Eddas of the Scandinavians, will read and admire and be amused by the story of the ancient gods and mythical heroes of the island world, whose exploits were not less wondrous than those recounted in the poems or collections of verses named, and, indeed, bear a close resemblance to them.

To many it may appear presumptuous to claim the existence of anything like poetry among a people who have been commonly regarded by those unacquainted with them as a few degrees removed from the brute creation: but in the eastern

groups of the Pacific, inhabited by the Polynesian race and extending from Hawaii as far south as New Zealand, songs have been sung by native poets that are worthy an honored place in any library of verse.

The Polynesians are superior mentally as well as physically to a majority of the dark races that have not advanced (until recently through contact with Americans and Europeans) beyond the savage state, although in some respects, as measured by the standard of our civilization, they have reached a level below which there is little possibility of descent. And if they are capable of more advanced thinking than we are wont to meet with in the rude chants of barbaric people, yet their legendary poems seldom possess elevated ideas that make the songs of other and better-known ancient nations so attractive.

The style and tone of poetic compositions are indicative of the intellectual condition of those by whom and for whom they are written or recited. The versification of European poets centuries ago evinced a loftiness of thought and beauty of diction only possessed among a people of advanced mental culture; while the best of the latest Polynesian efforts are similar to the oldest extant which that people brought with them in their journeyings from their early home on the mainland of Asia, whence they spread eastward and northward and southward until no habitable islands remained to be peopled. That there has been no improvement is not surprising. Surrounded at all times by the same influences and not enjoying the benefit of intercourse with people differing from them in speech and habits, few new words were acquired; and, as thought in its development cannot maintain a faster pace than the growth of the language used to express and embalm it, new ideas and evidences of progress are wanting.

The earliest Arabic poetry is not unlike the Hawaiian in quality and manner of expression; but with the acquisition of greater knowledge by the Arabs during the Middle Ages, their romance and poetry attained a high degree of excellence.

In later years, however, they have lost the proud intellectual position they once occupied and their poetry has suffered from their retrogression. The poet is also influenced by other properties of the language that is made the vehicle of his thoughts. If it be pliant and smooth-flowing, there is a constant desire to employ it in the most musical forms; but if it be rugged and rebellious, ideas cannot be portrayed in pleasing colors, and a great stimulus to poetic composition is wanting. The language of the Armenians, for instance, is harsh and unpleasing, and although possessing a literature rich in philosophical, historical and theological writings, it is lamentably poor in poetry.

The Polynesian dialects, if less rich than the Arabic, are not fettered by the harshness of the Armenian, and are well adapted for song. The people, too, are of a poetic temperament, having a natural fondness for rhythm of utterance, music and motion—that triumvirate or trinity of nature so powerful at once in expressing and ruling the emotions. Lovers of poetry as well as poets are born, not made, and where there is none of the former there must necessarily be few of the latter, in conformity with the prosaic but immutable law of supply and demand.

And where poetry does exist it cannot be suppressed. The Arab casts a spell of enchantment over the burning sands of the desert; the Norseman sings of the snow and the frost; the Polynesian whereso'er he may turn, is met with a theme for song. Every plain, inlet and stream, every mountain peak or other landmark, is associated with traditions of gods and famous warriors, and every island and intervening channel has been the scene of numerous battles and thrilling exploits. Nature, too, has been prodigal in the distribution of charms about his native islands, "where every prospect pleasing is." Every swaying tree, every sigh of the wind, every foam-crested wave, every angry breaker, emits a note of music and suggests a poetic thought. He breathes the air of poetry and sings because he must.

From time immemorial these Pacific Islanders like the Gaels, the Cymry, the Anglo-Saxons and various continental peoples, had their bards who composed and chanted poems in honor of their chiefs and beautiful women. By them, also, were preserved the ancient songs and traditions, and the genealogies of the chiefs, which were recited on public occasions. These were learned by rote and passed down with the greatest care from generation to generation. It is astonishing to know the number of long poems that some of them learned in this way and were able to repeat correctly. Kekauluohi, one of the wives of Kamehameha I. of the Hawaiian Islands, possessed an extraordinary memory and was selected by the kings as a repository of ancient lore. Many historical and other songs have been saved in this manner from the fate that threatens the race whose emotions and passions were once swayed by them. What is preserved and reduced to writing would fill a number of large volumes and enough has been put into English to discover some of its peculiarities.

Several of the American and English missionaries in the Pacific have made the history and customs of these people a study and translated many of their legends and chants. The largest existing collection of these traditions and melees pertaining to the Pacific Islands, gathered by the late Judge Abraham Fornander, is fortunately in possession of the Bishop Museum, where it will be carefully preserved.*

Translation from the Hawaiian (the following remarks are confined principally to the melees, or chants, of the Hawaiian Islands, but will apply in nearly every particular to those of other Polynesian groups) into English is attended with much difficulty, so great is the difference in the construction of the two languages. While the Hawaiian is deficient in words representing ideas that can only be produced by greater cultivation, or expressing abstract ideas, it is exceedingly rich in specific terms admitting of delicate shades of meaning that

* This collection is now in course of publication.

cannot be correctly represented in English. This is particularly true of the verbs which, in their moods, tenses, numbers and persons, admit of nearly 3,500 forms, some of which it is impossible for the foreigner to learn to distinguish between, without long and careful study. In the use of the verb, the formation of words from the radical—usually a dissyllable—and in certain peculiarities of construction, the language resembles the Hebrew. Some of the ancient legends also read like the Hebraic.

Words and syllables in the Hawaiian or other languages or dialects of Polynesia end in a vowel, and two consonants never occur together. The syllables are short, containing usually but one or two letters, and never more than three—a consonant and two vowels. Many words consist entirely of vowels, and short sentences without a consonant are sometimes met with. This would render the language unpleasantly guttural were it not for the frequent recurrence of liquid sounds. The only consonants in the Hawaiian alphabet are h, k, l, m, n, p and w.

By its flexibility the language is well adapted for poetic composition, and the license allowed Hawaiian poets is not less liberal than that accorded to our own. For the purpose of modifying the meaning, or for the sake of euphony, words may be formed by the reduplication of either the first or second syllable of the root, by prefixing other syllables to the words thus formed, by doubling both syllables of the root, by prefixing or suffixing certain syllables to the same, or by the insertion of one or more letters (sounds) in some words. Words are also abbreviated by the omission of the initial vocal letter (sound) and in other ways. In the meles many words occur that are not used in conversation and combinations are permitted that are not elsewhere to be met with.

Hawaiian poetry does not conform to our grammatical rules prescribed for versification, or to styles formerly in vogue in Europe. It is not alliterative like that of the early Anglo-

Saxon, Scandinavian or Tamul, nor does it rhyme like the oldest existing specimen of Scottish poetry. There is no regular alternation of syllables differing in quantity, and, unlike our ordinary blank verse, the lines have not a corresponding number of syllables; yet it is readily distinguishable from prose. It is measured by sound and not by feet, and being invariably chanted, in tunes adapted to the style of composition, is not lacking in music and rhythmical pulsations.

Alliterations are frequent but not methodical and are due more to the small number of sounds in the language than to the design of the composer. Occasionally we encounter perfect rhymes, or find several successive lines of iambic, trochaic or other measure, but their occurrence is purely accidental. A good line is recognized by the composer, however, and is sometimes repeated unaltered or with slight change of form; or may be made to occur at intervals as a refrain.

Although possessing a love for musical language, the Hawaiian is unable to appreciate rhyme or metrical precision. If the thought expressed be poetic and be poetically expressed he desires nothing more. Even those of the present day who have had the benefit of an English education and are familiar with a number of hymns and songs translated into their own language, see no beauty in rhyme, and songs they have themselves composed to popular foreign airs have lines of unequal length, necessitating in singing the prolongation of certain words in some and rapid enunciation in others. Even the late King Kalakaua, who had read extensively in English and wrote his own language gracefully, was not an exception. The first stanza of one of his popular songs, written in both languages, reads:

"Be still my puuwai
E nae iki nei,
Hanu malie, nahenahe,
Sweet Lei Lehua."

A stanza of a prize hymn to the tune of "God Save the

King," composed by Lunalilo before he ascended the throne, is as follows:

"Ka inoa kamahao
Lei nani o makou,
E ola e!
Kou eheu uhi mai
Pale na ino e,
Ka makou pule nou,
E ola e!"

A hymn, formerly the national anthem of Hawaii,* is similar in respect to rhyme. And yet none of these is devoid of poetry. The following is a translation (not literal) of the verse from Lunalilo's hymn above. (Translated by Rev. L. Lyons.)

"Royal, distinguished name,
Our beauteous diadem,
Long life be thine;
Thy wing spread o'er our land,
From every wrong defend;
For thee our prayers ascend—
Long live our king."

The haku mele, or poets, have always been highly honored in the Hawaiian Islands. The sole occupation of many of them was the composing and chanting and preservation of mele, and in some cases the office was hereditary. There were several classes of mele—songs of war and adventure, laments, love songs, etc., but there seemed to be reflected in many of them the unhappy social condition of the people, for, throughout Polynesia owing to frequent wars, the oppressive regulations of the priesthood and the tyranny of the chiefs, it might have been truly said,

"Pleasures are
As birds which light and fly."

The brief existence of peaceful periods is well expressed in the following extract from a dramatic song composed in Mangaia, an island of the Hervey archipelago, wherein reference is made to the "behest of Rongo," the god of war.

* Composed by the late Queen Liliuokalani, sister of Kalakaua, entitled: "He Mele Lahui Hawaii".

* "An end was put to the dance Tautiti,
By the warlike behest of Rongo.
Alas, Tane! author of all our amusements,
Those pleasures all came to an end;
For Miru's dread oven forever burns
In the shades!
She devours all who go down."

The muse's natural form of expression is one of joy; but if joy be crushed it will make itself heard in lamentation, and Polynesian poetry, so far as rendered into English, is almost an unceasing wail; and when it does take a lighter vein it is too often sensuous, lewd and debasing.

Some of the poets when composing would select a retired spot where, secure from interruption, they could clothe their ideas in musical phraseology. Most of the chants composed in this manner were short and often excellent. Some of the best, exhibiting the purest poetic spirit, were composed by women. Few long ones, however, were the product of one person. The famous prophecy, "Hauī ka Lani," foretelling the overthrow of Keoua, a Hawaiian chief, by Kamehameha, eight years before the event took place, consists of several hundred lines, and was composed by a chief named Keaulumoku. Joint authorship was common. The "Inoa o Kualii," an epic of more than six hundred lines, was composed by two brothers and chanted by one of them within hearing of two armies immediately before a battle. Another method of composition described by the late Hon. Lorrin Andrews* was for the poet to summon a few of his poetic brethren, and after announcing his subject and explaining the manner in which he proposed to treat it, recite what he had composed, line by line, or thought by thought, the others acting as critics. Every thought approved by all would become a part of the mele. Each was revised in this way, approved unaltered, rejected or amended, the sense and words being carefully adjusted to what

* This and other selections from Mangaian compositions occurring in this review are from Wm. Wyatt Gill's "Myths and Songs from the South Pacific", or "Savage Life in Polynesia".

* Islander, Honolulu, 1875. p. 35.

proceeded. They then assembled from time to time until the mele was finished; and each had it thoroughly fixed in his memory and was able to repeat it verbatim. A stranger method was for a chief to gather about him a number of other chiefs, noted warriors and composers, propose a subject for a mele and appoint each one to furnish a line or idea, which was subjected to the criticism of the others. And in this manner, not unlike the passage of a long bill by sections in any legislative body, they proceeded until the whole was completed.

As an instance of the remarkable rapidity with which some of them memorized these mele, as well as showing the estimation in which compositions of the highest class were held, the following incident, related by Mr. Fornander of the visit of Lonoikamakahiki, a Hawaiian chief, to Kakuhikewa, chief of Oahu, will serve.*

"After Lono (name abbreviated from above) had left his royal host in the evening and retired to rest, he got up and went down to the beach to sleep in his canoe, where the cool breeze of the sea would fan and refresh him. While there, another double canoe arrived during the night from Kauai, having on board a chiefess named Ohaikawiliula, bound to Hawaii on a visit. Lono accosted the stranger, inquired the news from Kauai, and in course of conversation learned that a new mele or chant had just been composed in honor of this chiefess's name; that it was only known to a few of the highest chiefs on Kauai, and had not yet become public. Prompted by curiosity and a natural bent for acquiring all sorts of knowledge, Lono entreated the chiefess to repeat the chant, which she complaisantly did, and Lono's quick ear and retentive memory soon caught and correctly retained the whole of it.

"His expected sleep on the beach having been thus interrupted, Lono returned to the house and slept soundly till late in the morning.

"Kakuhikewa, having enjoyed an uninterrupted night's rest, rose early next morning and repaired to the seashore for a bath, according to the custom. He there found the canoe

* Polynesian Race, Vol. II. pp. 118-119.

of the Kauai chiefess just getting ready to leave. Saluting the stranger, he also inquired the latest news from Kauai, and received the same information that Lono had received, of which fact, however, Kakuhihewa was ignorant. Having repeated the chant to Kakuhihewa, and he having committed it to memory, the Kauai chiefess made sail and departed, and Kakuhihewa returned to his palace much pleased with the opportunity of puzzling his guest, when he should awake, with the latest news from Kauai. When Lono finally awoke and made his appearance, Kakuhihewa challenged him to chant the latest mele from Kauai. Without hesitation Lono complied, and recited the chant correctly from beginning to end, to the great discomfiture and perplexity of Kakuhihewa."

The opening lines of this chant are beautifully smooth and musical, and are given here, that the reader may have an idea of the Hawaiian style of composition. The vowels are sounded as in French, and each one is in a separate syllable. In pronunciation the accent should be placed on the penultima. There are exceptions to these rules, but it would be impossible and is unnecessary to give examples here. The lines read:

"O ke alialia liu o Mana,
 Ke uhai la no.
 Ke uhai la ka wai;
 Ke uhai la ka wai a Kamakahou.
 Wai alialia,
 Wai o Mana.
 Mehe kai la ka wai,
 Mehe wai la ke kai;
 Mehe kai la ka wai o Kamakahou."

The English translation is as follows:

"The salt pond of Mana
 Is breaking away.
 Breaking away is the water,
 Breaking away is the water of Kamakahou.
 Salt is the water,
 The water of Mana.
 Like the sea is the water,
 Like water is the sea,
 Like the sea is the water of Kamakahou."

In the above will be noticed the transposition and repetition of lines, which practice is common throughout Polynesia.

and often the effect is quite pleasing. Sometimes one or more words are changed without affecting the sense, as in the following, *nunulu* and *nonolo* being synonymous terms for the chirp of a bird:

"I ka leo o ka manu-a-
E nunulu mai ana-a-
E nonolo mai ana-a."

Translation:

"Heard is the voice of the bird
The twittering from its throat
The warbling from its throat."

Numerous examples like the following might also be furnished:

"The scattered islands are in a row,
Placed evenly from east to west;
Spread evenly is the land in a row," etc.

Words frequently are repeated in a single line, as:

"The rain flies—flies with the wind."

Again with the use of "that" and "this," common in oratory as well as in poetry, occur repetitions such as:

"The altar, the altar of that one,
Hakuhakualani is my father;
The altar, the altar of this one,
Hakuhakualani is my mother."

And the following, alluding to a battle:

"That was a chief, this was a chief—
The stake was the island."

Rhymes, such as

"He henua hiwaoa me Aheetai,
He henua hiwahiwa Aomai."

"A beautiful country far from Aheetai,
A beautiful country is Aomai,"

from a Marquesan poem, are sometimes encountered, but as previously noted, are accidental.

There seems to have been no one who earned the appellation of "The Poet of the Isles," yet there were many famous bards whose *meles* are still held in high repute. The style of composition has remained the same from the earliest times; modern composers imitate but do not excel the ancient; and

except that a few words used in the oldest chants have become obsolete, there has been no change in the poetic dialect.

There is a suddenness or abruptness to Polynesian poetry, both ancient and modern, that causes it to appear broken and jagged in reading, like many of the best-known specimens of Oriental verse. The compositions of all barbarous or savage peoples are similarly sententious and elliptical, but in cantillation this unevenness is materially modified. The oldest chants of the Islanders do not differ greatly in style from the best of the most ancient that have come down to us from Eastern nations.

Their poems are redundant with figures, many of them bold and beautiful. Their composers frequently introduce allegory and metaphor, and similitudes are common. The metaphysical conceptions of some of the older poets are striking, and all possess a strong love for the miraculous. They are frequently luxuriant in description and exhibit touches of true pathos. There is also manifest a love of and intimate acquaintance with nature and natural phenomena, and though graphic in their descriptions where such are personified or compared figuratively with their heroes, yet there has not been found one Hawaiian poem, however short, addressed to the seas that surround them, the volcanic peaks that tower above, the verdurous valleys that nestle between basaltic ridges, the palm that beautifies the beaches, or the stately koa of the forest. (In this regard the compositions of some of the more southern groups are in advance of the Hawaiian.) Nor have they odes to the emotions or passions, although frequent allusion to them, with faithful portrayal, occurs in the mele.

To one unacquainted with the customs and folklore of the Polynesians, many passages in their chants appear ambiguous. And even to many intelligent Hawaiians the meaning is clouded, owing in great measure to what were figures and allegories being accepted literally after the lapse of time. And

although not fully understood by later composers, references to such passages are incorporated into more recent chants and their real meaning thereby hidden. Often these parts which appear obscure on first reading, when understood are the most beautiful. Much confusion arises at times from the names of their heroes. The Hawaiians are given names of objects, events, and physical peculiarities, as is common among most uncivilized peoples. Some of these are odd enough and others are poetic. Noted personages frequently have a number of epithets, and advantage is often taken of this to make a play on words. These are sometimes ironical and sometimes humorous, but usually in praise—and always misleading when not understood.

To appreciate fully the beauties of the meles of the Polynesians, it is necessary to possess some familiarity with their history, mythology, traditions and habits. But the same may be said of the compositions of any other people. What, indeed, would be to the reader the grandest epic in our own tongue without a knowledge of ancient mythology (Hebraic, Grecian and Egyptian) and of prominent personages and events in the history of the world? No poet is more given than Milton to straying from the beaten pathway in search of rare treasures hidden away in secreted nooks; and he is never grander than when he soars away from his theme to make a striking comparison.

Composers of the Hawaiian mele inoas, or name songs, and mele koihonuas, usually laudatory of some chief, have been much given to coupling the names of their heroes with famous men of an earlier day, and the giving of a local habitation to events of a remote antiquity some of which occurred elsewhere. The introduction of such persons and events frequently results in the perpetration of anachronisms mystifying to the most careful student of Polynesian lore.

No less confusing are references to local customs which often are not understood by others than those resident among

the people of whom the composer was one. The lines from a Mangaian lament,

"Slices of Maratua's ears
Announce all new possessions."

sound strangely enough and are without meaning to the reader.

Maratua was the person selected to be sacrificed when peace was declared after a war, and according to custom his ears were severed from the head, the right ear representing the north side of the island of Mangaia, and the left the south side, and these were divided into as many pieces as there were districts for sub-chiefs.

Many such passages are encountered.

Like Homer the Polynesian poets bring the gods from their abodes above or beneath the earth or from the sea to perform, or enable favored personages of this sphere to perform, prodigies in their battles, games, or other contests. Their mythology resembles in some respects that of ancient Greece, and the stories told of their traditionary heroes are not more ridiculous or less entertaining than those of the cultured Athenians.

Proud of their race, its history and their illustrious rulers and legendary characters, and devotedly attached to their island homes, they love to glorify each in their mele, by the recitation of which they are often deeply stirred.

They are children of Nature and chant Nature's language in her own music. As the waves are the amanuenses of the winds and carve their records upon the rocks, so the Polynesians, not less impressionable, have the music of the winds and the tides—as heard on the coral reefs, in the forests and mountain clefts—graved into their souls and give it expression in the songs of their ever-beautiful isles. In listening to their cantillation we hear the roaring of the distant waterfall, the moaning of the winds, the wild rage of the billows, the murmuring of the rivulet—increasing and diminishing in volume, rising and falling, as wafted to us from a distance, and falling again until subdued to a mere breath.

One of the earliest forms of composition was the prayer, and many of such as chanted by the priests have been preserved. The following prayer to Lono, of particular historical value to students of Polynesian religions, is an excellent specimen of one of these ancient Hawaiian offerings:

PRAYER TO LONO.*

"Strangely lofty indeed is this heaven,
This very heaven which separates the seasons of heaven:
Trembling is the lowest point.

* * * * * *

Extended be the sacred worship of Lono,
Extended through Kahiki and worshiped.

Budding are the leaves of Lono,
Changing is the image of the god,
Changing within Maewa-lani;
Sounded has the shell in Papa-ia-mea.

Silent are the heavens;
The eyes of Lono have been seen by Kahiki;
Extended be the rays of light.
The leaves of Lono are falling,
Doomed is the image of Lono to destruction;
Standing it falls to the foundation of the land;
Bending low is the glory.

Covered is the god by the heaven;
Fastened up is that heaven.
Covered is the god by the shell of the earth.
Squeaking is the voice of the Alae inside of Kanikawi;
Cracking is the voice of the thunder—
Cracking inside of the shining black cloud.
Broken up are the mountain springs from below.

Passed away has the god, he dwells in the clefts;
Gone is the god, he dwells in obscurity;

Passed has the god Lono, he dwells in the mire.

Sounding is the voice of the shell-fish;
Sounding increasingly is the voice of the snails,
Sounding excitingly is the voice of the birds;
Cracking is the voice of the trees in the forest.
Here is your body of a bird, O Lono!
Whirling up is the dust in the sky,
Flying are the eyes of Lono to the altar of Hoomo;

And he dwells here in the land.

Growing is the body high up to heaven;
Passed away are the former blustering winds,
The first-born children of Hinaialeele.

May I be saved by you, O Lono, my god!
Saved by the supporting prayer!

* Polynesian Race, Vol. II, p. 355.

Saved by the holy water!
Saved by the sacrifice to you, O god!
Here is the sacrifice, an offering of (prayer) words."

Reference has been made to the use of refrains by Polynesian poets. These were used more often and more methodically in the southern groups than in Hawaii, the subdivision of compositions into stanzas being more perfect there and more common. A number of refrains recurring regularly as the closing lines of successive stanzas, are here given as fair samples from Mangaia:

"Our garments are mourning weeds and flowers"
"Grief fills thy widow as she turns (on her pillow)."
"My wife became a tower of safety."
"My home was where the laurel tree grows."
"Never more will Iva be seen."
"List to the southwest wind awakening."
"Fell the fair palm soaring above all others
At Araata; now the tribe of Teipe mourns."

The last above is from a lament over the death of a chief. And the following refers to the need of a friend's protection, the use of the word "shadow" as here given being common throughout Polynesia:

"O for a rock under whose shadow I might rest."

A leading occupation of the men of all the Pacific Islands was war, and most of their celebrated poems are devoted to the exploits of their heroes and tribesmen, to their principal battles and to the results of their conflicts. It was considered a great honor to be killed in battle. The spirits of those who were not slain in war were supposed to enter the dominions of Miru, or Milu, in netherland. The following lines are from a lament for a Mangaian who did not die a warrior's death, censuring the god Tane in whom, apparently, the deceased had placed his faith:

"Oh, my god, thou hast failed me!
Thou didst promise life.
Thy worshipers were to be as a forest,
To fall only by the axe in battle."

Quite similar are these quotations from Maori laments.*

"If thou hadst fallen in battle on account
Of Rotua, then no lamentation would be made."

"Hadst thou fallen on the battle field
At Tauranga, when Tee Mara and Ihumounga were
discomfited, lo,
It had been well with thee and us;
Thy passage to the grave would then
Have been as smooth as these fine
Mats on which we lie."

A Mangaian poet well explains the unsettled conditions in his own island, and throughout the Pacific archipelagoes as well, in a single line:

"Mangaia ever belongs to the bravest."

And a Hawaiian poet describes with like conciseness the constant dread of war in which the people lived:

"Start not at the rustling of the leaves.
Lookest thou behind thee for a lurking foe?
Ah! how timidly thou turnest around."

The relentless pursuit of the tribe of Teipe after defeat in battle is referred to by a Mangaian poet as follows:

"Teipe is as a defenseless bird, flying hither and thither."

Another composer of the same island, referring to the fickleness of Rongo, the god of war, describes a change of rulers thus:

"Long and peaceful was the rule of Mautara,
Enduring five sacred lustrums.
Like a tall palm was the priestly sway.
His descendants, Potiki
And Ngara, reigned three lustrums apiece;
Then Rongo willed
That those who had been chiefs should be slaves."

A Maori laments as follows the death of one who fell fighting for his land of Moerangi:

"Where are the spears which thou so
Fondly nursed on yesternight?
The garments which were fastened
To thy heart-strings—who loosened those?
Is Moerangi a ship on board of which
Thou sailest to thy death?"

*From the Maori Mementos, by Chas. O. B. Davis, from which other quotations for this review have been made.

A Hawaiian poet tells the result of a battle in the lines:

"The ghosts are crowded together. They are dead,
Flown to the pit of oblivion, to the pit where regret
Cometh not."

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In the warm southern latitudes where courting was short and fervid, and where brides frequently became such by force, sentiment is not wholly wanting in the chants of the islanders. A homesick and lovesick Mangaian sang:

"Under yon ancient banyan tree
Was I first seen by my lover,
Covered with sweet-scented flowers."

Another poet of the same island in a composition bordering on the Anachreontic, thus praises the charms of women:

"Red necklaces for Mauapa
To win the favor of the fair,
Mixed with leaves of purple hue."

And here is a specimen from Easter Island, in which a maiden avows her love:

"Who is sorrowing? It is Hengu-a-manu Hakopa,
A red branch descended from her father."

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She has long been yearning after you.
Send your brother as a mediator of love between us."

Glimpses of Oriental splendor are obtained in the following extracts from a very ancient Marquesan chant of the creation:

"And dwelt as kings in the most beautiful places
Supported on thrones, large, many-colored, wondrous."

"Ono is powerful and great,
Atea is adorned with riches changeable and dazzling,
Ono is adorned with princely wealth and power."

Other samples from Hawaii are:

"The breaking light of morn—the sudden flash of light is Leama-noaano."

"The strong blast, the sweeping rain, the smiting wind of winter,
The straight falling rain, the rain without wind,
The rain with wind, as at Kona:
Such is the chief, the gust, the wind of Kona,
The hurricane tearing down villages,
Laying waste the land, the very Kamaniheunonea."

As elsewhere noted the Polynesians are fond of admiring the beauties of nature, and make frequent reference to such

in their songs and longer poems. The following specimens will serve as examples:

From Hawaii—

“Fallen has the wind, it is sleeping—eh—
Resting is the wind, sleeping indeed—eh—.”

“Never quiet, never falling, never sleeping,
Never noisy is the sea of the sacred caves.”

“Lowering were the clouds in the month of Hinaiaelele.”

“The mountains are covered with pointed rushing clouds, bearing
strong winds.”

From Mangaia—

“I love the fragrance of the flowers
At Aupuru, from fairy women
Arraying themselves by starlight,
Whilst Ina in the moon looks on.”

“Stood awhile to gaze wistfully
At the glories of the setting sun.”

From the specimens of Polynesian poetical compositions given in this review, necessarily fragmentary, many points of similarity from isolated islands or archipelagoes far removed from one another will be noticed. Expressions strange to other parts of the world, save in adjacent islands and the mainland of Asia whence these people emigrated centuries ago, are common to all portions of Polynesia. Could entire poems be given, the resemblance in style of composition and forms of expression would be seen to be far greater than is shown by the number of brief extracts presented.

In all parts of Polynesia several classes of poems are composed. The solo and chorus was and is common to all sections of the Pacific, but appears to have been more used in the central groups. In this portion of Oceanica more poems were addressed directly to natural objects than in the extreme south or north. In the Fijis, Friendlies, and other groups of the region, dramatic songs have been composed to be produced, after frequent rehearsals, on native fete days, which have represented the surf beating upon the shore in calm and storm, the action of the winds in mildness and in anger, and

other similar plays of the elements. Dramatic poems are known to all parts of Polynesia and in many islands the temper of the elements is represented in connection with some person or event sought to be commemorated, but are not directly portrayed as merely descriptive of elemental changes and disturbances.

More progress appears to have been made with versification in these central islands than elsewhere, so far as known at this time, the division into stanzas often being methodical and the arrangement perfect. Mangaian, in quoting from their poems, often designate the stanzas from which the lines are taken. In other groups the break into verses is marked, as has been previously stated, by the repetition of refrains at certain intervals, and in other ways, the stanzas usually containing as many lines as one can speak or chant at a single respiration. Some of the long poems seem to be thus marked for cantillation. The writer once heard a Hawaiian woman chanting a mele inoa in honor of a chiefess on a public occasion, which appeared to be thus subdivided. She possessed a sweet voice and sang in a low soft monotone. Starting with a full breath the tone would gradually and gently fall away in lessening volume until it became a mere shadow of sound trembling upon the brink of silence. This process was repeated stanza by stanza, breath by breath, until a mele of several hundred lines had been repeated.

In the early part of this article the manner of preservation of the old mele of the southern seas was described, but there was in the Pacific one notable exception, and that was in Easter Island, the inhabitants of which had a written language.

Samples of old poetical compositions from that island given on preceding pages are from incised wooden tablets. The knowledge of this written language dates back to a remote period, and was possessed only by the royal family, the principal chiefs and their sons and by the priests. This knowledge

continued to a recent date, but at present no one is known to possess the ability to read the existing records. The people of the island were from the earliest times, during the reigns of fifty-seven kings, assembled once each year at a particular locality to hear the tablets read, and thus the meaning of some of the inscriptions are known, a few of the natives being able to repeat them verbatim.

The poetry of all branches of the Polynesian race is well worthy the attention of careful students, and the best specimens should be preserved in their original words as well as rendered into English for better preservation. This is particularly true of the older epics, some of which have been shown to possess an antiquity of more than a thousand years, and are valuable historically, notable among which is the Marquesan poem of the creation, a beautiful allegory, from which brief extracts have been made for the purposes of this review.

THE PAN-PACIFIC UNION.

BY WALTER F. FREAR.

THE Hands-around-the-Pacific movement was inaugurated ten years ago at a Pan-Pacific conference held in Honolulu. Its general objects were to further cultivate the spirit of interracial brotherhood which had already become such a notable feature in Hawaii, to develop a similar spirit among all the peoples in and about this greatest of oceans, and generally to promote the welfare of Pacific lands. The live wire of this splendid conception was Alexander Hume Ford, whose energy and enthusiasm have evoked deep interest in it not alone in Hawaii but on the "Coast" and in Australia, New Zealand and the Orient, all of which countries he has visited as a propagandist of the movement.

The Pan-Pacific Union is the outgrowth of the Hands-around-the-Pacific movement. It is an incorporated body, with twenty-one trustees, organized to hold and care for property and to transact business in connection with subsidiary bodies.

It is hoped that in time the trustees will be appointed only by governments of Pacific lands, and that the Pan-Pacific Union will bear much the same relation to such governments that the Pan-American Union bears to the governments of the United States and the Latin-American countries.

The Pan-Pacific Association, affiliated with the Pan-Pacific Union, is an unincorporated organization, membership in which is open to all who sympathize with and are willing to promote the objects of the Pan-Pacific Union. The dues are \$2.50 a year. This entitles the member to receive "The Mid-Pacific Magazine", a monthly, now eight years old.

Briefly, the specific objects of the Pan-Pacific Union, as set forth in its charter, are:—

1. To call in conference delegates from all Pacific peoples for the purpose of discussing and furthering the interest common to Pacific nations.

2. To maintain in Hawaii and other Pacific lands bureaus of information and education concerning matters of interest to the people of the Pacific, and to disseminate to the world information of every kind of progress and opportunity in Pacific lands, and to promote the comfort and interests of all visitors.

3. To aid and assist those in all Pacific communities to better understand each other, and to work together for the furtherance of the best interests of the land of their adoption, and, through them, to spread abroad about the Pacific the friendly spirit of inter-racial co-operation.

4. To assist and to aid the different races in lands of the Pacific to cooperate in local fairs, to raise produce, and to create home manufactured goods.

5. To own real estate, erect buildings needed for housing exhibits; provided and maintained by the respective local committees.

6. To maintain a Pan-Pacific Commercial Museum, and Art Gallery.

7. To create dioramas, gather exhibits, books and other Pan-Pacific material of educational or instructive value.

8. To promote and conduct a Pan-Pacific Exposition of the handicrafts of the Pacific peoples, of their works of art, and scenic dioramas of the most beautiful bits of Pacific lands, or illustrating great Pacific industries.

9. To establish and maintain a permanent college and "clearing house" of information (printed and otherwise) concerning the lands, commerce, peoples, and trade opportunities in countries of the Pacific, creating libraries of commercial knowledge, and training men in this commercial knowledge of Pacific lands.

10. To secure the co-operation and support of Federal and State governments, chambers of commerce, city governments, and of individuals.

11. To enlist for this work of publicity in behalf of Alaska, the Territory of Hawaii, the Philippines, Federal aid and financial support, as well as similar cooperation and support from all Pacific governments.

12. To bring all nations and peoples about the Pacific Ocean into closer friendly and commercial contact and relationship.

The President of the Pan-Pacific Union is the Governor of Hawaii. Its honorary presidents are heads of or high officials in Pacific governments. On the 22nd of last June, the day on which Charles J. McCarthy was inaugurated as Governor of Hawaii, he was inaugurated also as President of the Pan-Pacific Union. This was in the presence of the Secretary of the Interior, Franklin K. Lane, who accepted an honorary presidency of the Union, and was presented by the many Pacific races in Hawaii with flags of their respective Pacific countries to present to President Wilson with the request that the latter accept an honorary presidency of the Union.

In many cities of the Pacific there are Pan-Pacific clubs and these are generally affiliated with the Pan-Pacific Union, although they are independently governed bodies. Many of them celebrate Balboa, or Pan-Pacific, Day, the 17th of September, by holding meetings of representatives of all Pacific races in their respective communities. This celebration was greatly extended this last September in Hawaii. Meetings were held throughout the entire week, called Pan-Pacific week, and many Hawaiian and Pacific problems were the subjects of enlightening discussion.

It is planned to hold a Pan-Pacific conference of the leaders of thought and commerce from Pacific lands in Honolulu

immediately after the war, or perhaps earlier, for a discussion of after-war plans together with the proposed Monroe doctrine for the Pacific.

Honolulu has been selected as the logical center for Pan-Pacific conferences. Here heads of governments and leading business men of Pacific countries often meet and are entertained by the officers of the Pan-Pacific Union.

Plans are in progress to unite with the Mid-Pacific Institute in establishing at the crossroads of the Pacific a Pan-Pacific commercial college, where students from every Pacific land may come and, among men of their own race and of every other race of the Pacific, study the varied business methods, customs, language and history of Pacific peoples. Already there is in course of organization a Junior Pan-Pacific Chamber of Commerce in Honolulu, intended to train young men of the different races growing up in Hawaii to work together for the welfare of the Territory and the Pacific.

As an outgrowth of these aims and of the request of the San Francisco representative of the Federal Shipping Board for information and suggestions looking to the preparation of Hawaii to become the central supply and service station of the Pacific for all lands that border the ocean, a Pan-Pacific Chamber of Commerce committee has recently been created and this has held a conference of representatives of all of the Chambers of Commerce in the Hawaiian Islands, including those of American, Chinese and Japanese citizens, with a view to having all of these chambers work under one Pan-Pacific committee to aid Hawaii in her service of all Pacific lands.

The Pacific governments have been asked to send permanent representatives to Honolulu who will be on the directorate of the Pan-Pacific Union and, it is hoped, fill chairs in the proposed Pan-Pacific commercial college. When the governments and people of this great ocean have really stretched their hands in friendship around the Pacific, Honolulu must naturally be the hub and central clearing house of the movement. Her mission is that of service.

A LITTLE KNOWN ENGINEERING WORK IN HAWAII.

BY J. N. S. WILLIAMS.

THE District of Kohala, Island of Hawaii, is celebrated as the birthplace of the great Kamehameha I, whose ancestral lands and estates were situated at and near Halawa, and whose memory is kept alive in the mind of the passerby when he observes the statue of that powerful king which stands near the government road at Halawa, looking out towards Maui and Oahu, the scenes of his latest conquests.

To those interested in the life and works of the ancient Hawaiians there are few if any districts in this Territory which repay search and investigation better than this same District of Kohala, as it was in the olden days one of the most thickly populated of any. One is impressed with this thought when skirting the shores of the district in the good ship "Mauna Kea" in the daytime, as the innumerable stone wall enclosures of all shapes and sizes indicate very clearly what the density of the population in those parts must have been in the early days in these islands when "might was right and the weakest went to the wall".

Much has been written and said about the heiaus, the paved roads, the ancient ditches, and the burial caves which were constructed and used in the olden days in this country, but few people have even heard of, and fewer still have ever seen the remarkable engineering work situated in this district, which is about to be described.

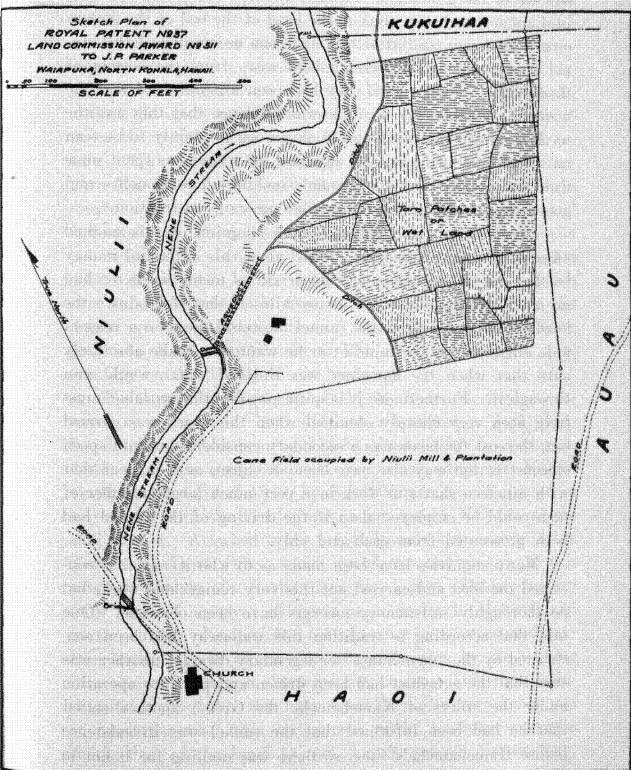
In the land of Waiapuka, now partly in the possession of the estate of Bernice Pauahi Bishop, there is a grant shown on the maps, and known as Royal Patent 37, Land Commission Award 511, to J. P. Parker, having an area of 21.7 acres. This Grant is situated alongside of the Nene stream which forms the Western boundary of the land or Ahupuaa of Waiapuka. This grant is within a short distance on the south-erly side of the government road which enters the Pololu

gulch a half-mile or so beyond the Nene stream, to the eastward.

This grant, R. P. 37, contains several acres of taro lands the water for which is brought out from the stream above mentioned in the manner to be described, but before entering upon this description it becomes necessary to explain the contours of this land which are quite unusual. The eastern banks of the Nene stream is composed of a narrow rocky ridge situated within the grant of land to J. P. Parker, which ridge is about twenty feet higher than the bed of the stream itself, and is only about 200 feet wide, the taro lands mentioned within the boundaries of the said grant are in their entirety lower than the bed of the stream itself, so that it is possible by driving a tunnel through the ridge at a suitable point to deliver water from the Nene stream on the taro lands, and this has been done, as shown on the sketch map of the property which was obtained by courtesy of the Territorial Survey Office, and is attached to this paper.

This work consists of a diverting dam constructed in the bed of the Nene stream, very substantially made, with the up-stream side of the dam properly paved so that boulders brought down by freshets might pass over the crest of the dam without causing damage to the dam itself, a side ditch leading from the up-stream side of the dam to the face or entry portal of the tunnel, which at this point has been driven through the rocky ridge mentioned above. The diverting dam and side ditch would not attract any attention from passersby, as such works are to be seen on any sugar plantation, or in connection with rice fields or taro lands, but the construction of the tunnel or aqueduct is so unusual as to immediately raise questions in the mind of the observer as to why such methods were adopted.

The drift through the ridge is only about 200 feet long from entry to discharge, and the depth of the floor of the tunnel below the surface of the ground does not exceed at any point more than twenty feet. From all indications the first work done was the sinking of no less than nineteen wells or



shafts from nine to ten feet apart on a line laid out on the surface of the ground, these shafts or wells are about four feet in diameter, and were sunk to the level of the bed of the stream or a little lower, and after this had been accomplished the tunnel was completed by driving both ways from the bottom of these shafts or wells until they had been all connected and the waterway completed. The material evidence that this was the method adopted in carrying out this work is plainly to be seen on the ground at the present day, and the writer has spent some time in looking over the ground, making measurements and generally examining this remarkable piece of construction.

The reasons which led up to the adoption of this method of construction can be only guessed at at this date, and it may be that the tunnel driver was uncertain as to his levels, or had no means whereby he could assure himself that if he drove the heads from each end of the tunnel he would meet on a reasonable alignment in the middle; or he wanted to make absolutely sure that when the aqueduct was finished water would run through it. Furthermore it is quite possible that as labor must have been very cheaply obtained when this work was carried out, the cost for labor was a secondary consideration, and speed of construction may also have been an object, as it is clear that with nineteen shafts to work in a very much larger number of men could be employed than if the driving of the tunnel had been prosecuted from each end only.

Many enquiries have been made as to who it was that conceived the idea and carried out this very remarkable work, but no thoroughly satisfactory answers have been obtained. One said that according to tradition this waterway had been constructed by the "menehunes" or legendary dwarfs; another was sure that the aqueduct had been driven and put into operation under the orders of Kamchameha the Great; another stated that he had been informed that the tunnel was in existence before Kamchameha's time, so there was nothing for it but to search records, books of travel in the Hawaiian Islands in early days, and other sources of information, in the endeavor

to find some clue which would lead to a reasonable approximation as to the time when this work was done, and as to who did it.

In the Journal of the Rev. William Ellis, an English missionary who made a tour of the islands in the summer of the year 1823, one can read of a visit to the District of Kohala, and of the interview with one of the men-at-arms of Kamehameha the Great, (who had died in 1819, only four years before). This man, full of pride in his deceased leader and king, gave Mr. Ellis many details of the king's life and accomplishments, and showed to the visiting missionary many works and improvements which had been carried out by Kamehameha in early days. It is significant, however, that no mention whatever was made by Mr. Ellis of the engineering work which this paper describes. Mention is made of a Mr. Parker, an American farmer, who cultivated a considerable tract of land, and who lived near Pololu Gulch; from the context, presumably on the Kohala side of the gulch.

The aqueduct or tunnel which has been described is situated on the piece of land which was conveyed to J. P. Parker by King Kamehameha III by deed dated January 1st, 1843, and this conveyance was confirmed after the Mahele (or land division) of 1848, by Royal Patent No. 37, issued in accordance with the Land Commission Award No. 511 to the said Parker. Attached to the original documents on file in the Territorial Land Office which cover the conveyance of this grant of land to Mr. Parker, is a sketch plan of this property with notes of a survey of the same made by T. Metcalf, and on this map is clearly shown the aqueduct in question with certain indications of the method of construction by the sinking of a series of shafts a short distance apart. This then is indisputable proof that this tunnel had been constructed and was in operation when this survey was made, sometime previous to the date of the Land Commission Award on August 10th, 1849.

Inasmuch as Mr. Ellis made no mention of this tunnel in

the published notes of his visit to Kohala in 1823, and as Kamehameha's retainer would undoubtedly have showed this work to Mr. Ellis if the king had in any way been instrumental in its construction, it seems to be a fair inference that the tunnel had not been constructed at the time of Mr. Ellis' visit in 1823.

We can therefore be reasonably sure that this aqueduct was driven and put into operation some time between the years 1823 and 1849.

It also seems to be a fair inference that the Mr. Parker mentioned in Ellis' Journal is the same Parker to whom King Kamehameha conveyed the piece of property described, and that the aqueduct in question was constructed for that same Parker, certainly by Hawaiian labor, as that was the only help available at that time, and since the use of steel tools and blasting powder was known in those days, it seems to be reasonably certain that these implements for piercing rock were used.

In all probability this was the first water tunnel or aqueduct constructed in these islands for the purpose of conveying water from streams for agricultural purposes.

ISLAND YEARNINGS.—A correspondent, nearing the 81st milestone on life's journey, recalls his early life in Hawaii in the following vein:

"Now, in the afterglow, my memory carries me back to shaded pathways in ambrosial woods, lit with the fires of never-ending blooms; I hear again the bird-music ringing through the green rafters of the woodland aisles; I hear again green deeps of the valleys; I look abroad again over the translucent waves of the Pacific from the summit of Haleakala, and see the heavens blue dome in the "gloaming", obscured with the eerie light from the pit of Kilauea; I hear again the thundering of the surf as it rolls over the coral bars, frets its spindrift against the precipitous headlands, or dies away in snow-white foam on the yellow sands of Waikiki."

FORNANDER'S COLLECTION OF HAWAIIAN ANTIQUITIES AND FOLK LORE.

REVIEW BY S. PERCY SMITH, IN *Journal Polynesian Society*,
SEPTEMBER, 1918.

WE HAVE now received the third and last part of this valuable publication issued as "Memoirs, Vol. IV., of the Bernice Pauahi Bishop Museum of Honolulu," Hawaiian Islands, and heartily congratulate that most excellent large, and to Polynesian scholars in particular, this exceptional collection of Polynesian literature.

The three numbers of "Memoirs" form a volume, twelve by ten inches, of 609 pages, with an exhaustive index of fifty-two pages in addition. These traditions were collected by the late Abraham Fornander, of Hawaii, and form the basis of his great work on "The Polynesian Race," 1878. From his position as a judge of the High Court, Fornander was in touch with the most learned of the old Hawaiians, and many of them were persuaded to write down their history, etc., as handed down by their forefathers. These original documents are given in the work before us, expressed in the Hawaiian dialect, with the translation into English on opposite pages. The early part of the work was—we understand—translated and supervised by our late member, W. D. Alexander, LL.D., but the bulk of the work is due to the careful translation of Mr. Thomas G. Thrum, of Honolulu.

The work is illustrated all through by long genealogies, which, to the ordinary reader, possess little interest, but are nevertheless of very great importance, as on them depends the approximate dates of events in the history of the people, for the Polynesians, strange to say, whilst frequently able to name the month and the day—according to their calendar—of any happenings, had no system of chronology other than this. This is a very strange omission in a people that decidedly had the historic instinct; but advanced as they were in many ways

towards a higher civilization, they did not seem to feel the want of dates any more than to be able to say that such and such an event occurred in the time of so and so—and hence the great importance of genealogies.

The traditions embodied in this volume on the origin of the people do not appear to be so full and precise as those of the Maori people of New Zealand. There is in the first *mele*, or song, given in the book, an indication that the current beliefs pointed to the people being, in their minds, autochthones on the Hawaiian islands, in which they resemble the Samoans. And yet there are expressions in this *mele*, and in other parts of their traditions, that decidedly point to migrations to the group. We would suggest to the translator that where he used the name Tahiti, in the fourth line of the *mele* on page two, that, knowing this name to be the equivalent of the Maori Tawhiti (their word of Tahiti), it is probable the name is intended for either Tawhiti-roa or Tawhiti-nui of Maori tradition, which were certainly islands in Indonesia, and not that of Tahiti Island in the Eastern Pacific. It was from the latter island (Tawhiti-nui, which has tentatively been identified with Borneo) that a migration of the Maori branch of the people struck across the ocean until they made land at Ahu, of the Hawaiian Islands, now Oahu. Probably further evidence of this identity of geographical names is to be seen in the *mele* on page 16, where Tahiti-tu and Tahiti-moe are mentioned as the homelands of Wakea (Atea in other dialects) and Papa (the Rangi and Papa of Maori legends), which we suggest are expressions for east and west Tahiti, and thus would correspond with the two Maori Tawhitis, of which Tawhiti-nui laid to the north-east of the other. But this is a subject that would lead us far away from that in hand.

The connection of some of the names in the long genealogical table on pages 24-25, with ancestors of the southern branches of the race, has already been shown in former numbers of this "Journal".

On page 28 is to be found the Hawaiian account of their

first encounter with white people (*haole*), which is embodied in an ancient chant in reference to Kualii (Tu-ariki in Maori form of letters), a former king of Hawaii. It is not clear when this chieftain flourished, but still, evidently long ago. Does this reference to a white race, with a strange language, refer to the visit of the Spanish in the early sixteenth century? Or, as the story says, the strangers were seen in Tahiti, does it refer to the Indonesian Tawhiti alluded to above? There can be no reasonable doubt that the old Hawaiian voyagers were quite capable of reaching Indonesia guided by the knowledge of the route handed down by their ancestors who came from there originally, and here they might have met some of the early Portuguese explorers who were in Indonesia as early as 1509. These *haole* might even have been Chinese, who frequented the Archipelago as early as the first century of the Christian era, if not before. Fornander mentions (Vol. II., page 25) some white foreigners brought to Hawaii by Paumakua. This is probably the same man as Paumatua of New Zealand tradition, a noted voyager who flourished some twenty-five generations ago. However, these are questions surrounded by uncertainties.

The bulk of the traditions are naturally local in color, but no doubt, as is often the case, some have been localized, whilst in reality the events took place in far distant countries before the people settled in Hawaii. For example, the search of Aukelenuiaiku (or, to express his name in Maori form, Autere-nui-a-itu) for "The water of life of Kane" (Te Waiora a Tane, in the Maori tradition) is certainly older than the Hawaiian settlement.

We are given in these traditions much relating to the period of the long voyages of the Hawaiians, and here we come across other ancestors of the New Zealand Maoris, particularly in the persons of Olopana and his wife Ru'ukia, who are no doubt identical with Tu-Koropanga and his wife Rukutia, who flourished some twenty-seven generations ago in the Eastern Pacific, according to Maori history. Such identities

of names tend to show the close connection of branches of the race now separated by the width of the Pacific.

There is one thing that causes some surprise in this series of legends, and that is, the absence of the well-known traditions in reference to Kahai (Maori Tawhaki) and of Maui. And yet both ancestors were known to the Hawaiians, for they enter into the genealogical table on page 25; and Mr. Westervelt in his little book, "Maui, the Demi God," has preserved a great deal relating to the latter from Hawaiian sources. Forander has suggested that Kahai, his father, son and grandson were interpolated on the Hawaiian lines from southern genealogies, and this seems probable from the period in which they appear on the Hawaiian lines.

Altogether the appearance of this series of traditions marks a stage in the history of the Polynesian race to which the future historian must refer for much that is not elsewhere to be found. We congratulate Mr. Thrum on his labors, but wish he had seen his way to separate the "article" from the "noun" in proper names, and to have divided some very long names into their component parts by hyphens. Of course we know he was only following those who originally reduced the language to writing, but some of the names prove very difficult of pronunciation to those not having a knowledge of Polynesian languages.

WAIKIKI BEACH PROJECT.—Public opinion is aroused from time to time at the lessening area available to them of this much-heralded Honolulu attraction, and demands are made that private interests should not bar free access to the sand beach, bathing and surf-riding facilities of Waikiki. The matter is again agitated from both local and tourist standpoints, and is in the hands of a strong committee to devise the way and means of acquiring rights to a large section of beach property to be thrown open to the general public, that the famed recreative attraction prove Honolulu's worthy asset.

MORE PETROGLYPHS

(PUUANAHULU AND HONOKOHAU)

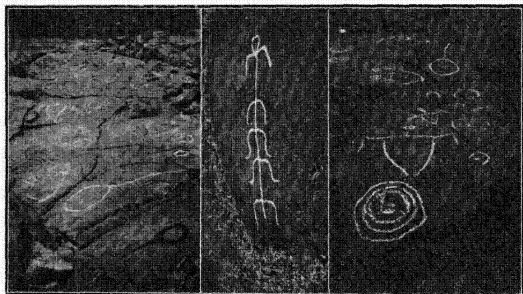
BY ALBERT S. BAKER, M.A., M.D., B.D.

THE writer has long been familiar with the petroglyphs of Kahaluu, Kona, and Naalehu, Kau, so fully described and pictured by Mr. J. F. G. Stokes in No. 4, Vol. IV. of the Bishop Museum Occasional Papers and by Rev. W. D. Westervelt in the HAWAIIAN ANNUAL for 1906. There are also descriptions of other petroglyphs in different parts of the Territory, and references to other observers, in Mr. Stokes' article and in one by Mr. A. F. Judd in the HAWAIIAN ANNUAL for 1904.

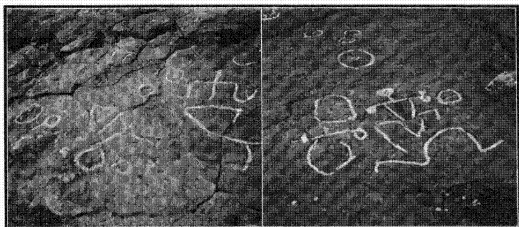
For years rumors of extensive rock writings somewhere at the extreme northern end of Kona have filtered in to me, but only on recently reading in the paper above mentioned, about Mr. Stokes' discovery of a "remarkable sight of a couple of acres of pahoe-hoe closely covered with petroglyphs", on a trail "at Puuanahulu in South Kohala", where it was "isolated by the flow of lava in 1859 and not easy of approach", did I determine to search for it. Mr. Stokes gives eight excellent photographs, considering that he had no chalk for outlining, and noted, in his brief examination, the innumerable forms, and what he calls concentric rings and cup marks, irregularly circular lines for the inclusion or separation of groups, and, on the outskirts, Hawaiian names and initials, sometimes dated.

Proceeding by automobile to Huehue, North Kona, we got an early start in the saddle on what proved to be a forty-mile round-trip horseback journey on trails, a portion of which was over the roughest kind of lava. At one time these trails formed the main thoroughfare around the island, but on this occasion we saw but two living souls on the whole trip, tho we were away from the present main road thirteen hours. Reaching Kiholo in less than three hours, we pushed on toward Kawaihae, thinking that we might find our goal in the section between the flows of 1859, as that was surely "isolated by the flow of 1859", but it was away past both branches of this flow, some six or probably eight miles from Kiholo, and about two miles before the Kohala line. It was here, on some brown or

reddish pahoehoe just before a high aa flow, that we saw the first Hawaiian name, strangely enough with the date of my own birth. Soon we saw other names, and, looking inland, beheld the first circles and marks, which proved to cover more, rather than less, than two acres. Mr. Stokes is in error in calling it South Kohala; Puuanahulu, North Kona, being correct. It is on the lower trail, a half mile to a mile back from the shore. It might be reached as easily from the Kawaihae side, judging by the way it looks on the map. I have talked with a number who have been over that trail without seeing the figures, probably because their attention was taken up by the names until they had ridden past the area.

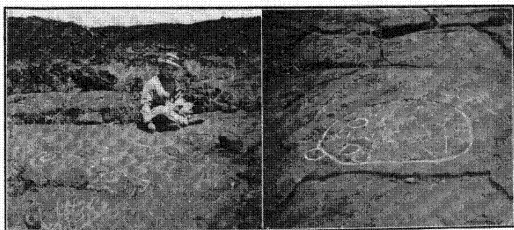


The rock is unusually soft for pahoehoe, the horses having cut a path along the trail across it, while elsewhere it is so hard that no impression has been made by all the years of travel, the way being marked by little piles of lava with a piece of coral or a bone to show white in the night. No such variety of lava in form or color has been seen on any other trail, except on the journey to the summit of Mauna Loa. There were also excellent views of all four mountains of Hawaii, and Haleakala, nearly all the way. The heat, however, was terrific; shimmering over the pahoehoe, and rising from the sun-soaked reddish lava, until after two hours of leaning over to chalk and photograph the figures, we were dizzy and nauseated.



There are hundreds of circles and thousands of marks of all kinds on this favorite field of ancient Hawaiian records, covering decades of time and perhaps centuries. There are crude human figures similar to those so well known at Kahaluu and elsewhere, animals or fish or birds, circles and circles within circles up to four or five, with or without dots inside and marks alongside, and part circles, figures of all kinds inclosed in large irregular rings which seem to point to a connected history, etc., etc. There seems to be Hawaiian writing from ancient prehistoric times up, and it is a truly remarkable place.

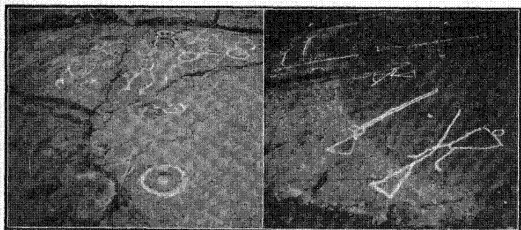
There are a few circles in other places on Hawaii, as Ellis noted, calling them "semicircles or concentric rings" (Ellis' "Tour Through Hawaii", p. 431.). I have often been told that these circles record trips around the island, a second trip putting another circle around the first, etc. The lines near the circles may represent the number in the party, and the charac-



ters included by an inclosing line may give the history of the journey. The illustrations will speak for themselves. It was impossible to get more than a few samples, and not all of these are chalked.

Luckily, just before dark, on the return journey, opposite a small stone-pile and a bit north of it, on the upper side of the trail, between the prominent flows from Hualalai and four or five miles from Kiholo toward Huehue and ten or twelve miles from the others, we saw a few ancient petroglyphs of the Kahaluu type and ten or a dozen circles, up to three concentric ones, and one with two dots inside.

An entirely new group, or rather several groups, of very unusual petroglyphs was found on a recent visit to Honokohau makai, some three or four miles by trail from Kailua. These were found just west of a cement salt-pan, on either side of a



stone fence leading to the sea, and not far east of the heiau at the side of the fish pond. Here were a number of the Kahaluu type of human figures again, and guns in excellent imitation. There were also three konane stones, as there are also three more in front of the village houses, a circle or so, some English letters, and various unknown figures. Again, a stone's throw south of the chapel are a few human figure, one elongated in a very peculiar manner, and a single figure twice as far from the chapel in a line toward the tombs north-east. Then there are also a half dozen guns and a human figure nearly at the tombs, in the same line from the chapel. So far as I know these have never been described, and the guns are

certainly unusual, as well as a peculiar type of what looks something like a tall hat.

The HAWAIIAN ANNUAL for 1915 refers to certain Indian petroglyphs in the States as being so similar to those in Hawaii, that we may have had early Indian visitors, but the Puuanahulu variety add so many forms that it leaves the Hawaiian group distinct in itself, and excludes any probable connection.

Dr. J. Macmillan Brown of New Zealand visited the Kahaluu petroglyphs with the writer in 1918, and expressed an opinion, based on other petroglyphs in the South Sea Islands, that the figures might represent humanized turtles or fish, and have to do with fishing rites, both when on the shore, as at Kahaluu, and when inland. He considered them wholly Hawaiian. While the arms and legs are frequently flipper-like, and some are covered by the tide, yet again, the variety at Puuanahulu excludes this theory also. It is a pity that this interesting mass of ancient picture writing is not more accessible for study by those competent to undertake the task.

KILAUEA VOLCANO DURING 1918.

BY L. W. DE VIS-NORTON,

HAWAIIAN VOLCANO RESEARCH ASSOCIATION.

THE year just closed has been one of extreme interest so far as the great Volcano of Kilauea is concerned, and has seen spectacular changes and the greatest overflows that have occurred within the past forty years. It should be remembered in studying this brief review, that the observed habits of the lava lakes of Kilauea point to a rise to the solstitial period, with a fall at equinox. There is, however, a secondary movement, due to gradual restraint and gradual release of gas pressure, productive of prolonged rising after the equinoctial fall, with a shorter fall before the rise to solstice, while, after the rise to the solstitial period, subsidence may be expected to set in, with a pronounced rise immediately before the regular equinoctial fall. With this in view, it is interesting to have a

brief summary of the behavior of the Kilauea lava column with its summit lakes. The year opened, as in 1917, with a rising lake, the whole of the summits of the great crag masses, or "floating islands", as they are often, erroneously, called, being clearly visible above the rim of the pit. This rise continued, as expected, up to the time of solstice, and was then followed by general sinking, so that, at the end of the month, the lakes were fifty feet below the rim of the pit.

Rising set in again with the coming of February, and, as the month wore on, became extremely rapid and spectacular. The pit presented an extraordinary appearance with the molten lakes only a few feet below its rim, and the crag masses towering fully ninety feet above the spectators. The climax was reached early on the morning of February 23rd, when the lakes overflowed vigorously, and in a few moments had destroyed the automobile road and terminal, together with the trails across the main crater floor generally used by visitors. The overflows continued, amid scenes of unparalleled excitement, for some three days, but by March 8th subsidence had again set in and the lakes had fallen to a level of about 40 feet below the rim of the pit.

Thereafter, and until the equinox, there was the usual steady rising, followed at the equinoctial period by sharp subsidence to 50 feet below the rim, and continuing until April 12th when recovery set in, slowly at first, but changing to strong rising by the end of the month, and continuing, with periods of slight fluctuation until nearly the close of May, when slow sinking commenced, until June 20th, followed by the expected sharp rise to the solstice.

July opened with a rising tendency, but the conditions soon became stationary and remained so until August 10th, when an extraordinarily rapid rise commenced, lasting for six days, the lake being less than 25 feet below the pit rim when measured on the 23rd of the month.

Throughout September there was a remarkable steadiness of the lakes with a very slight tendency towards sinking, but

rising again commenced slowly in October, and by the middle of November had reached an apparently temporary culmination in the outbreak of streams of lava through the floor of the main crater at varying distances from the pit, a most unusual occurrence. On the 15th of the month, however, a gigantic subsidence to a depth of 200 feet took place with spectacular red-hot avalanches. Thereafter a steady period ensued with the likelihood of the year closing with a rising lake, and every possibility of heavy overflows occurring in the early part of 1919. The behavior of the lava column has served to strikingly verify the conclusions arrived at during several years of close study, and forms a most valuable index for future work at the Hawaiian Volcano Observatory.

ALASKA-HAWAII CRATERS

THE February, 1918, issue of the National Geographic Magazine, in its account of the Katmai Expedition's explorations of the "Valley of Ten Thousand Smokes," gives the dimensions of the Katmai Crater, Alaska, which erupted June 12, 1912, as follows:

Circumference of crater.....	8.4 miles
Width of crater rim.....	3.0 "
Area	4.6 "
Greatest depth.....	3700 feet

Our active volcano, Kilauea, therefore may be eclipsed in magnitude of area, as claimed, but not so the convenience and safety to observers, who may approach even to the brink of Pele's everlasting fires. But since Katmai has settled down to her smoking task it would seem more appropriate to make comparison with the crater of Haleakala.

COMPARATIVE CRATER FIGURES.

	Katmai.	Haleakala	Kilauea
Circumference.....	8.4 miles	20 miles	7.85 miles
Extreme width...	3.0 "	2.37 "	1.95 "
Extreme length...	.....	7.48 "	2.93 "
Area.....	4.6 "	19 sq. miles	4.14 sq. miles
Greatest depth...	3700 feet	2652 feet	500 feet

OUR RED CROSS WORK

CONTINUING the record of Hawaii's Red Cross activities, as given authoritatively in last ANNUAL, the following figures and particulars to September 30, 1918, are condensed from the various reports at the recent annual meeting of the organization:

President E. D. Tenney, dealing with its activities, showed that for the period up to July 1st the American Red Cross through its various chapters had produced and sent forward in fifteen shipments:

Refugee garments.....	490,120
Hospital supplies.....	7,123,621
Hospital garments.....	10,786,489
Knitted articles.....	10,134,501
Surgical dressings.....	192,748,107

A total of 221,282,838 articles, of an estimated value of \$123,320.90, largely the output of women's hands. Of similar work since produced, an initial shipment of 472,710 articles to Siberia was made September 14th, which comprised 444,430 Surgical dressings, 18,899 Hospital garments and supplies, 8,683 Knitted articles, 442 Baby layettes and 286 pieces warm clothing.

The Red Cross now has active operating commissions in France, in England, in Italy, in Belgium, in Switzerland, in Palestine and in Greece. It has sent a shipload of relief supplies and a group of devoted workers to Northern Russia; it has dispatched a commission to work behind our armies in Siberia; it has sent special representatives to Denmark, Siberia, and the island of Madeira. It has thus extended relief to the armies and navies of our Allies, and is carrying a practical message of hope and relief to the friendly peoples of afflicted Europe and Asia.

Judge Whitney, chairman of the Civilian Relief division, reported its organization and methods of work by its various committees on all the main islands of the group. This branch of relief work came into being in the early part of this year,

and while impossible to tell the exact number of families served or visits made, it is estimated that from four hundred and fifty to five hundred families per month are visited throughout the islands.

Miss Beatrice Castle, supervisor of women's work for the Red Cross, reported on the local activities on the various islands as follows:

Owing to the fact that war relief work was already established in Hawaii before America's entrance into the war, the relief committee merged into the Red Cross Auxiliary in September, 1917, and the auxiliary became a part of the Hawaiian Chapter early in 1918. This auxiliary on Oahu shipped 159 cases of supplies before the end of December, 1917.

The department of women's work is divided into four sections—first, surgical dressings department; second, hospital supply department; third, knitting department; fourth, refugee department.

Each one of the Islands has worked valiantly in these lines.

An inspection tour of Red Cross activities was made to all of the islands by the supervisor of women's work. Everywhere—in the principal towns, on the plantations, in country districts—profound interest was shown in the Red Cross. All nationalities mingled in the great cause of humanity.

On Maui this work is carried on in seven main districts under the able direction of Mrs. F. F. Baldwin, and a very creditable record has been made. The headquarters of the Hawaii branch at Hilo is under Miss Ivy Richardson's supervision. Work is distributed to willing and capable aids in the various districts, which is executed with entire good will by all nationalities, so that regular monthly shipments come to headquarters each month. Kauai work circles the "garden island", the eastern section in seven divisions, of which Mrs. Chas. Rice is director, and the western section of four divisions under Mrs. Eric Knudsen. Under their enthusiastic leadership a splendid showing has been made.

Oahu, with its many women, Hawaiians, Chinese, Japanese,

British, French, American and still other nationalities, wearing the emblem of the Red Cross, has sent its share of surgical dressings and garments to the soldiers and refugees.

Twenty-one hospital supply units sew unfailingly and cheerfully. Thirteen surgical dressings units fold gauze and make muslin bandages; hundreds of women knit; layettes are forwarded to the babies in Europe.

The Throne Room and hospital supply department are constantly filled with women who are giving their time and strength and sympathy to the work. In the Territory of Hawaii the spirit of the Red Cross has touched all nationalities. The Hawaiian Chapter, under the jurisdiction of the 14th Division, works not only for the soldiers "over there" but for a closer understanding of all peoples.

Since June 30 many knitting units have been organized, as also new units in the other departments, whereby the work in general has increased.

The second war fund drive was for a grand total of \$100,000,000.00 and the quota allotted Hawaii was \$250,000. In addition to this amount our Chapter needed locally, according to estimates arrived at by Mr. G. R. Carter, then chairman, approximately \$160,000, thus making the total amount required \$410,000 for the year ending December 31, 1918. The splendid results of the drive hardly need comment or repetition here. It was ushered in by what was, beyond question, the most inspiring parade that ever passed along our streets; the thousands of faithful women workers clad in their Red Cross uniforms presented a spectacle that can never be forgotten. This parade drove home to the hearts of everyone who witnessed it, and spread throughout the Territory, the merciful message of the Red Cross.

The sum of \$677,265.82 was realized as a result of the drive, thus oversubscribing the required amount by \$267,265.82. Seventy-five per cent. of the amount realized at the drive, as also of dues collected, goes to the Department in Washington.

The number of pledges and amounts from the various islands was as follows:

	Number Subscribers	Amount
Maui	14,322	\$ 75,089.22
Molokai	437	1,418.15
Kauai	13,720	85,516.55
Hawaii	19,087	88,061.37
Oahu	61,419	427,180.53
Total.....	108,985	\$677,265.82

OFFICERS 1918-19.

President.....	E. D. Tenney
Vice-President.....	H. L. Ross, Hilo
Treasurer.....	R. A. Cooke
Assistant Treasurer.....	H. G. Winkley
Secretary.....	H. R. Macfarlane
Chairman Civilian Relief.....	W. L. Whitney
Instructor of Classes.....	Mrs. G. P. Wilder
Supervisor of Women's Work, A. R. C., Territory of Hawaii.....	Miss B. Castle

RETROSPECT FOR 1918.

SUMMARIZED CONDITIONS.

HAWAII has had, probably, the most strenuous year of her existence, due largely to the war conditions as experienced elsewhere. The demands upon the time, talent and wealth of her citizens in patriotic, humanitarian, and philanthropic lines have been continuous, yet the campaigns have been met with a liberal response, as will be shown under their respective heads.

The calling into service of our militia; the drafting of those eligible for war purposes, first from 21 to 31 years of age, and subsequent registration for draft under the "Man Power Act" from 18 to 45, has naturally affected all industries and business interests throughout the territory. What with a labor shortage, the sugar, rice, pineapple and coffee growers have been and are seriously handicapped, and only under great pressure were shipping facilities afforded Hawaii to relieve overcrowded warehouses to forward their products to a waiting market.

Passenger movements have also been hampered in both arrivals and departures, not only in lack of accommodation but by conflicting and contradictory reported requirements of passport or travel permits, so that the tourist traffic has been virtually suspended. In years to come researchers will note the absence in our papers of marine intelligence, so essential in a sea-port. There will be difficulty in checking up arrivals and departures of vessels, or of passengers. This worked a hardship on an isolated community in the "Cross-roads of the Pacific" while the official ban was on, as a necessity of the war.

Another war condition imposed, affecting every hostelry and household, is the "Hooverizing" of all food and other products, a measure which is being lived up to quite generally, with few lapses, so far, and these less from willfulness than otherwise.

POLITICAL.

The gathering together of delegates to the nominating conventions owing to war conditions lacked much of the political excitement or enthusiasm of former years, attendance being largely by proxy, and the local planks of the party platforms varied so little as to furnish the excuse that each had stolen the other's thunder.

The spice of this year's campaign was the entry of Dr. Jas. H. Raymond, of Maui, to contest with L. L. McCandless in his aspiration as delegate to Congress in opposition to Kuhio, the Republican stalwart, but, contrary to general expectation, he fell short of the nomination.

At the primaries, for senators and representatives for the coming legislature for Oahu there were ten candidates for the three senate vacancies and 43 aspirants for the twelve seats in the lower house. The other islands doubtless had a like experience.

At the general election, November 5th, the returns showed a sweeping Republican victory on all the islands save Oahu, which gave five seats in the lower house to the Democrats. In the race for delegateship, Kuhio again won over McCandless, the total vote being: Kuhio, 7548; McCandless, 6131.

LEGISLATIVE.

A special legislative session was convened May 14th called to provide funds for Hawaii to repair her storm damages. The session held fifteen days, at an expense of \$18,000; it passed a few timely measures and tabled a number of foolish ones submitted under the guise of patriotism.

The political complexion of the coming legislature is as follows: Senate, all Republican; House, twenty-four Republicans and six Democrats; their names appear in the Registrar and Directory division for their several islands.

CARNIVAL SEASON.

Carnival period, February 21-23, this year, was what was termed a "home affair" compared with former efforts, and for various good and valid reasons, viz., it was war time, which was not conducive to the carnival spirit; Red Cross and other demands on the time and purse of the community was felt, and the withdrawal and uncertainty of steamers had stifled passenger traffic and brought the tourist business practically to a close. Notwithstanding, Washington's birthday was fittingly observed by the largest military parade yet seen here. This was preceded by open-air dance festivities the evening before at the Executive grounds. A children's song pageant at the Punahou campus by pupils of the public schools, the first day, was a successful event, as was also the hibiscus exhibit on the closing day.

KAMEHAMEHA DAY.

Kamehameha Day memorial exercises were held Sunday, the 9th, at Kawaiahao church as usual, in which the various Hawaiian Societies participated. Prince Kalaniana'ole gave the address and outlined the importance of next year's observance which will mark the hundredth anniversary of Kamehameha's death, and the introduction of christian civilization.

The day itself, the 11th, was merged into the Fair attractions, after the customary morning parade and decoration of the Kamehameha statue, a summarized account of which appears elsewhere.

NOTED VISITORS.

Prince Arthur of Connaught and party, en route on a special mission to Japan, passed through here June 7th and was duly honored in his brief stay and enjoyment of his tour of sightseeing.

Hon. Franklin K. Lane, secretary of the interior and party, arrived for a close observation and investigation of various Hawaiian problems, notably land and homestead matters, which took him through the group in his first-hand inquiries. Hawaii will benefit from such official acquaintanceship. Before departure he participated in the inauguration of Governor Chas. J. McCarthy and took part in the opening exercises of the Fair.

Gen. Paul Gerard Pau, head of the French mission to Australia, and party, made a day's stay in Honolulu, August 26th, en route for the Colonies, during which he toured the city and enjoyed the courtesies extended, for which he has since returned a note of appreciation.

Sir Joseph Ward, premier of Australia, and Hon. W. H. Massey, premier of New Zealand, as also Sir Paul Chater, of Hongkong, from their brief calls here on their missions to and fro, are appreciative co-workers in the Pan-Pacific movement. Besides these there have been a number of educational, commercial, and other representative bodies, including journalists, passing through who improved their opportunity for a better acquaintance with Hawaii.

Another distinguished visitor was Prince Lvoff, who passed through from Russia and Siberia, en route to Washington, in the interests of his stricken country.

OFFICIAL CHANGES.

Hon. Chas. J. McCarthy, territorial treasurer, was the chosen one of several aspirants to succeed Lucius E. Pinkham as Governor of Hawaii, and was sworn in by Chief Justice Coke, June 22d, which occasion was distinguished by the presence and participation of secretary of the interior Franklin K. Lane. Several cabinet changes naturally followed.

Mr. D. E. Metzger was appointed to succeed as treasurer,

and L. H. Bigelow succeeds W. R. Hobby as superintendent of public works.

Attorney-general I. M. Stainback having joined the army has been succeeded by Harry Irwin.

Hon. Jas. L. Coke was promoted to the chief justiceship early in the year to succeed Hon. A. G. M. Robertson, resigned. S. S. Paxson was appointed to succeed Dr. J. S. B. Pratt as president of the board of health.

WEATHER.

Last winter's rain throughout the group was general and above normal from about the middle of November. More thunder storms prevailed during this period than usual. Strong N. E. winds carried through January with frequent rains, while February is recorded as stormy, especially so on Maui and Hawaii on two occasions, with much rain whereby they materially recovered the ill-effects of last summer's drought. Heavy rains fell March 11-12, 16 and 25, being more severe on the southern islands and causing much damage. A like experience is the record for April, with several bridges carried away on windward Oahu and in the Kohala district of Hawaii. These months, furthermore, were cooler than usual.

Our summer rains, conveniently mostly night showers, were above the normal for each month on nearly all the islands, with warm weather holding off till the latter part of August, since which time the agricultural and pastoral sections are feeling the dry spell with the temperature above normal. All in all it has been a year of favorable weather.

FIRST INTER-ISLAND FLIGHT.

Following a series of successful flights around Oahu, as also to Molokai and return March 15th, Major Harold M. Clark of the Aero Squadron of Fort Kamehameha, accompanied by Sergt. Robt. P. Gray, set out at 9:15 a. m. May 9th for a sea-plane flight for Hilo, via Maui. Landing at Kahului about noon, then flying around the base of Haleakala by way of Ulupalakua at about 8000 feet elevation he struck

across the channel for Hawaii, where he met with dense cloud-banks and fog, forcing a change of course over the island whereby he became lost, and landed late at night in the tree-tops of the upper Kaiwika forest, Hilo.

Much anxiety was felt at their non-arrival, and search parties set out from various points to find them and render aid. Two days passed without a trace of the lost men or their machine, when they emerged from the woods above the Kaiwika homesteads to run into a body of searchers, having left their damaged plane and picked their way through dense jungle and down cliffs and streams, and without food or sleep the whole way. Word of their safety reached Hilo about 3 p. m. May 11th, and was quickly wirelessly to this city to the great relief not only of their military companions but the entire community.

SHIPPING MISHAPS.

The T. K. K. freighter *Shinyo Maru II* arrived off port January 5th with cargo afire since morning of the 2d, convoyed by a U. S. transport, which had picked up her S.O.S. message and went to her aid. The fire which had gained rapid headway, was under control on arrival and by the 7th was quite extinguished. On examination, her cargo of cotton rags and caustic soda had suffered much damage.

Br. stmr. *Coolgardie*, from Newcastle for San Francisco with coal, making port February 9th too late to enter, ran on the reef Ewardwards of the harbor entrance. Several tugs went to her aid and got her off during the night, with some damage which necessitated dry-dock repairs.

Schr. *Albert Meyers* broke from her moorings at Kahului in mid-March and drifted on the beach, but with the aid of the tug came off with but damaged keel and rudder, for repairs of which she came to this port.

Schr. *Caroline*, lumber-laden, anchoring at entrance of the harbor May 26th, dragged her anchors and struck heavily on the reef for several hours. Prompt aid rescued her, but at the

loss of much of the keel, as was learned on docking for repairs.

Thirteen survivors, including the wife and two children of the Captain of Schr. *Annie Larsen*, which left Port Allen, Kauai, April 2d, for Tahiti to load copra, were brought to this port the latter part of August, the vessel having been wrecked on Malden Island in the South Seas, and where they and the wrecked crews of Schr. *Baxter* and bark *John Murray* were some two months before being rescued.

Schr. *Ysabel May*, H. Jones master, was wrecked on Christmas Island, August 1st. The Captain and three men reached Fanning Island a week later in a small open boat for succor of his remaining crew. The *Ysabel May*, a three-masted schr. of 135 tons, left this port July ... for the island of her doom to load copra for San Francisco.

Stmr. *Santa Cruz* on entering this port October 20th, struck on the Waikiki side of the channel. By the aid of tugs, after some four hours' effort, she was floated off without material damage.

Captain O. Borrison and four of his men, survivors of ship *Dumaru*, destroyed by lightning October 16th, shortly after leaving Guam for Manila, were rescued from their improvised raft after several days' drift and exposure by a passing vessel and brought to this port November 7th. Forty-one other members of the crew left in two boats, both of which have reached safety.

HAWAII A DRY ZONE.

At least for a season, and it is hoped for good, the territory is enjoying the long-sought-for blessing and benefits of prohibition. As a war measure President Wilson signed an executive order March 4th, making Oahu a dry zone, effective April 10th. Subsequently full prohibition for the territory was obtained by Act of Congress which went into effect August 20th, for the duration of the war and a limited period thereafter, when a local plebiscite on the question will decide for or against the boon having come to stay.

FINANCIAL CAMPAIGNS.

The W. S. S. campaign organized with receipt of the first supply of war saving stamps early in the year, Hawaii's quota for the purchase of this class of baby bonds was placed at \$20 per capita, to realize the sum of \$4,500,000, subsequently reduced to \$2,000,000. A drive in its interest opened May 18th with a parade of the children of public and private schools, some 7000 in number, all flag bearers, and each one a stamp investor. They marched from Aala Park to the Executive grounds, where musical exercises and addresses were given. Floats and band music helped the inspiring scene. This campaign will close with the year. At the end of October the sales amounted to \$1,149,503.27. Dec. 2d, a supplementary drive was entered upon to attain our quota.

The second Red Cross drive opened May 6th with a parade demonstration of its army of workers to secure Hawaii's quota of \$410,000. The sum of \$677,265.82 was realized. This was followed a little later by a Salvation Army campaign in aid of its war work to secure \$200,000 as our proportional share.

The Belgian Relief work is still meeting with response to its quiet appeals. A recent published report showed that over \$30,000 had been forwarded since the start of its plea for aid. The Harry Lauder fund secured \$5,353, mainly from "brither Scots" throughout the islands, to whom the call for this war aid came.

The third Liberty loan campaign opened here April 5th, Hawaii's quota of which was \$3,610,317. After a very strenuous week throughout the islands 17,104 subscribers were entered here for \$4,809,000, exceeding our quota \$1,198,683. Official figures on the Coast credit us with 693 more subscribers for \$10,850 additional, probably subscriptions from here through Washington.

The fourth loan campaign to raise our quota of \$6,765,000 was entered upon September 20 and closed October 19th with an over-subscription of \$1,297,650. By islands, the subscrib-

ers and amount of their subscriptions in these two campaigns are as follows:

Islands:	<i>Third Loan</i>		<i>Fourth Loan</i>	
	Subrs.	Amount	Subrs.	Amount
Oahu -----	11,424	\$4,031,200	17,824	\$6,291,300
Hawaii -----	659	259,700	1,600	729,300
Maui -----	1,824	235,150	3,549	588,050
Kauai -----	3,197	282,950	2,066	454,000
Total -----	17,104	\$4,809,000	25,039	\$8,062,650
Quota -----		3,610,317		6,765,000
Oversubscriptions -----		\$1,198,683		\$1,297,650

The latest financial call was in aid of United War Work for the benefit of the Y. M. and Y. W. C. A., National War Council, War Camp Community Service, Jewish Welfare Board, Salvation Army, and American Library Association, to secure our quota placed at \$215,000. This held from November 11 to 20, closing with a realization of \$327,780.58, exceeding our quota over 50%.

Still another appeal is presented, in behalf of the "Fatherless children of France," the week's campaign therefor closing Nov. 30th with over \$15,000 realized.

RED CROSS ACTIVITIES.

The intensity of the activities of the American Red Cross organization, as was shown in our last issue, have been pursued throughout this year with increased vigor among all the units of the various islands. Several urgent calls have been received for special supplies from time to time, to all of which the noble band of self-sacrificing women bent their responsive energies and in due time, in each case, shipped forward the required supplies, supplementary to the regular staple routine activities. The work of the Red Cross has again outgrown its headquarter's capacity (the former throne-room of the executive building), and they have moved into the spacious premises of the University Club, kindly assigned them for their charitable labors. A summary of the year's activities appears elsewhere in this issue.

FIRES.

Fires have been fortunately few and far between since our last issue, the more notable being as follows: A fierce blaze occurred in the Union Bakery, Wolter's block, Dec. 14, 1917, which was fortunately got under in time. Chief Thurston and five of his men were badly hurt in their labors thereat.

March 17, 1918, fire from supposed spontaneous combustion broke out in the store of Hall & Son, Ltd., corner of King and Fort streets, doing damage to the amount of some \$7,000, covered by insurance.

Love's Bakery, on Nuuanu street, sustained considerable damage to machinery and stock in a night fire July 17th, supposed to have caught from the furnaces, causing a brief interruption to business.

One of the Royal Grove cottages, with its fine furnishings, was lost by fire May 1st, the adjoining homes narrowly escaping like fate. The property was insured for \$5,000. A dwelling in the McInerny tract with its furnishings was also entirely consumed, during summer, on which was a total insurance of \$2,200.

The grocery store and dwelling, corner of Kinau and Lunalilo streets, was badly damaged by fire August 5th; covered by insurance.

Hilo has been equipped this year with a Seagreve Centrifugal Fire engine, the first of these efficient agents for the big island's safety.

REAL ESTATE.

Activity in real estate has not been pronounced, as a rule, though a number of transactions of magnitude are recorded, among which may be mentioned the following:

The Mormon colony of Laie have secured the Koolau property of the late Jas. B. Castle, covering the cane planting, railroad, and water-right interests in the Koolau Development Co.

J. D. Spreckels is said to have purchased a 750-acre tract of land at Kilauea, Kauai, at \$33,000, part of the property being under cultivation.

Business property, corner of King and Smith streets, some 13,000 square feet, sold to a Chinese firm for \$65,000. The Irwin block, Ewa side of Nuuanu street, below King, has been purchased by Robt. Horner for the sum of \$42,000. Davies & Co. secures the Hendrick property, corner of Merchant and Alapai streets, whereby they obtain title to the entire block.

The federal government secures Ford Island for additional military purposes in Pearl Harbor, comprising 334 acres, for \$170,250.

The California Packing Association acquires a tract at Iwilei, below the old prison, purchasing the interests of two parties therein for \$80,000.

A residence section on School and Nuuanu, comprising 36 lots and cottages, changed hands to the Chinese Investment Co. at \$50,000. The Susanna Wesley Home, King street, has been bought for \$8,500 to be subdivided into cottage lots.

In Manoa, upper Nuuanu and other suburban sections, a number of transfers of homes are reported.

BUILDING NOTES.

The conditions handicapping all building enterprise, as mentioned in our last issue, have been more seriously felt throughout this year, and is marked by the absence of any new work of magnitude being entered upon. Nevertheless, there has been much done in suburban and cottage home building, of moderate class, besides the activities of alterations and repairs inevitable for the city's up-keep.

The various structures in progress at our last report finished in due course, save a few, and adds to the city's service and attractiveness. The new power-house of the Hawaiian Electric Co. is progressing in spite of difficulties met with in its foundation requirements, and its rising walls will soon show the magnitude of this enterprise. The only new business structure of note is the office building in stone and concrete of the Bishop Estate, on Kaahumanu street, though there are a number yet in abeyance.

The Honolulu Preserving Co. are extending their plant

by the addition of three new structures in the Iwilei district, at a cost of \$13,700. In school buildings is noted the addition of a new two-story concrete and frame addition to the Normal school at a cost of \$29,995, having six rooms on each floor, affording space for 500 pupils. This was completed in time for the fall opening. A large addition has also been made to the Kauluwela school building, costing some \$27,600.

The movement to overcome the tenement evil is resulting in the erection of many small cottage homes to take the place of crowded unsanitary structures.

Hangars for the equipment of Ford Island aviation station, for which purpose this property was secured, are already completed.

PUBLIC IMPROVEMENTS.

The concrete pier work at the corner of the Esplanade is finished and awaits the planned sheds in keeping therewith. In conformity with this is the re-construction of the Naval wharf, now in progress.

Bishop street extension has been carried through and paved from King street to Allen street, at the water front. Kalakaua Avenue and Diamond Head road to the Light-house are greatly improved and concreted. Work on the reclamation of the Waikiki marsh lands is said to be in the near future.

Lahaina is to be aided by the improvement of its landing, blasting of its reef to modify its difficulty and danger being under way. At Hana a new and concrete wharf and landing is in progress, to take the place of the old storm-wrecked structure. The new wharf is to be 250 x 42 feet and will cost \$75,000.

The Hilo breakwater is growing apace, with promise of completion of its 600-foot extension by the close of the year.

BUSINESS CHANGES.

In business circles the important change of the year has been the disposal and reorganization of the old-established house of H. Hackfeld & Co. and its interests, under the alien

enemy act, and becoming a full-fledged American-owned and controlled concern, incorporated as the American Factors Co. through the custodian of alien property. Under the same re-organization its branch, B. F. Ehlers & Co., becomes the Liberty House.

The Mutual Telephone Co. of this city secures control of the Maui Telephone Co. on the basis of exchange of shares; the transfer is said to represent a value of \$85,000. Following federal control of the Wireless, the Telephone service also comes under its jurisdiction.

The Union Grill closes its doors owing to the war, after a twenty years' existence. Waikiki Inn, or Heinie's Tavern, has gone under the auctioneer's hammer, piecemeal, and bankruptcy proceedings has closed the Wailuku Grand Hotel.

Fernandez & Correa have bought out Whitney & Marsh interests and merged the two dry goods concerns.

Asano interests of Tokio are reported to have purchased control of the Pacific (Japanese) Bank, Ltd., of this city.

Following the Pacific Mail's severance of connection with Hackfeld & Co. last year, the T. K. K. Steamship Co. have opened a local office here in the former Promotion Committee rooms of the Young Hotel, in place of its late agency with Castle & Cooke.

Oahu Ice Co. have purchased the property and good-will of its rival, the Barnhart Ice Co.

PINEAPPLE INTERESTS MERGING.

The following changes have occurred in the Pineapple Companies since our comprehensive table in last issue:

The Hawaiian Islands Packing Co. was absorbed by the Hawaii Preserving Co. in 1917 and the latter absorbed and dissolved by the California Packing Corporation in 1918. A. W. Eames is manager of their Hawaiian interests.

The Maui Pineapple Co. and the Haiku Fruit & Packing Co. have consolidated (1918) under the name of the latter company. Harold W. Rice is manager, A. F. Tavares secretary, and W. A. Baldwin superintendent of field work.

The Thomas Pineapple Co. has been absorbed by Libby, McNeill & Libby, Chicago, but retain the old name. They are represented here by C. H. Medcalf manager.

GREATER HONOLULU.

A movement looking to the material enlargement of Honolulu harbor and increase of its wharfage facilities is having serious consideration. Plans and specifications have been sent to Washington of our possibilities on that line, calling for an estimated expenditure of some \$9,000,000 to meet the preparedness demand on this Cross-roads port of the Pacific confidently looked for in the near future by the rapid expansion of the merchant marine in this ocean. Public attention to this situation was drawn by a request of the director of the shipping board that Honolulu harbor be set in shape for the prospective commerce expansion following the war.

In keeping with the above movement, which is but a development of former enlargement projects presented, is the revival of the free port idea, which has gained many adherents since Prof. W. A. Bryan's paper thereon in the HAWAIIAN ANNUAL for 1913. A recent address by him on the subject as applied to Hawaii, before the Commercial Club, has been circulated by the Chamber of Commerce to elicit various view-points on the important question.

PEACE.

Among the last, but most important in this record of events for 1918, comes the glorious news of victory for the Allies and the end of the war by the entire submission of Germany to the armistice terms for cessation of hostilities, as had Austria, Turkey and Bulgaria each done before her, virtually an unconditional surrender, followed by the abdication of Kaiser Wilhelm and his flight to Holland.

Sunday night, Nov. 10th, was made joyous on receipt of the glad tidings all through the city, the streets quickly filling with hearts eager to voice their thankfulness. Monday impromptu groups gathered and hasty arrangements for parade

made, for which a half-holiday was declared, but wet weather interfered so that the Japanese lantern parade was made the feature for Tuesday evening, and was a brilliant success.

Thanksgiving services were held Thursday evening by the several denominations in a union service at Central Union church, presided over by Bishop Restarick, Rev. A. W. Palmer delivering the address.

The joy of the week culminated Saturday night in a Victory bonfire opposite Palace square, and the execution of the effigies of the kaiser, the crown prince and eight others. Upon formal trial they were condemned and sentenced to be shot, hanged and burned, Mayor Fern personating Mephistopheles, acting as chief executor.

QUEEN'S WILL CONTESTS.

Theresa Wilcox Belliveau and Jas. Kealoha, upon jury trial, were found guilty of conspiracy in connection with a purported will of Liliuokalani, which experts declared to be a forgery, which secured a three years' prison sentence, which is appealed from. Another party to the fraudulent document, Saul Kamakaia, turned state's evidence and saved his bacon. Subsequently the principal in this case sought to secure next of kin rights to the estate, claiming descent from Keohokalole, mother of the late queen. This was also decided against her.

Three other alleged near kin claims have been before the court, to signally fail, the last being that of Mrs. Nawahie, which lasted several weeks. This case appeals for a jury trial.

QUESTION OF HOLIDAYS.

The various excuses for proclaiming extra holidays to the already too liberal list under legal authority, has at last drawn a protest at the public waste, business inconvenience and injustice to wage-earners. The climax is reached when the Mayor assumes to declare a holiday regardless of expressed public opinion in protest which the Governor respected.

AEROPLANE FATALITY.

The island's first aeroplane fatality is to be recorded in the

death of Corpl. Mark B. Grace of the 6th Aero Squadron, Ft. Kamehameha, which occurred Nov. 19th, by a fall of his plane at 10 a. m. within the fortification from a height of 3,500 feet, through failure to come out successfully from a "tail-spin" maneuver. He was accompanied in the flight by Second Lieut. Cary Crowdes, as pilot, who miraculously escaped with but comparatively slight injuries, while his companion was pinned beneath the machine which was wrecked by the fall, causing him external and internal injuries, from which he died toward evening.

THINGS MILITARY.

At the opening of the year Hawaii had 200 volunteers in active service over seas, and in a report, in May, the British Club volunteer list showed 175 men had gone forward.

The National Guard of Hawaii was called into service from the various islands June 1st to become the island garrison for relief of the regulars, and within a few days they moved into camp at Fort Armstrong.

Honolulu delighted to honor with an Aloha parade the departure on June 7th of the Hawaiian Company of volunteers, members of the Engineer Corps. As they marched from the Executive building to the wharf they were met by Prince Connaught, with the governor and staffs, who inspected and felicitated them at their embarkation.

NECROLOGY.

Again are we called to record a long list of departures of well-known residents, a number of whom died abroad. Since our last issue have occurred the following: H. S. Rickard (60), Rev. Hans Isenberg (62), Mrs. F. J. Lowrey, E. S. Cunha (66), Major F. J. Green (54), Mrs. P. A. Parmelee (70), Jno. D. Paris (63), F. C. Smith (46), Mrs. Henry Davis, Miss M. Ella Snow, C. L. Hopkins (64), Richard Ivers (53), Jas. B. Castle (60), B. F. Dillingham (73), Judge F. S. Lyman (80), Mrs. J. G. Spencer (60), Mrs. E. V. Hall (71), H. C. Carter, Cal. (38), Mrs. M. E. Alexander, Oakland; F. A. Hosmer, Mass. (64), J. P. Cooke (47), Genl. Edwd. Davis (72), M. T. Clegg, Jas. L. Torbert, Cal. (55).

Mrs. E. K. Wilder (87), Mrs. S. B. Dole (76), M. T. McIntyre, Sr. (78), A. S. Prescott (44), Rev. F. W. Merrill (61), Mrs. O. L. Sorrenson, N. Y.; Mrs. R. S. Johnston, Cal.; Chas. E. Wright (55), Mrs. H. M. Hepburn, Cal.; Mrs. C. S. Crane, Cal. (36), Dr. C. H. Trullinger (42), A. H. F. Renton, Cal. (36), Alex. Cockburn (70), H. Ginica, Cal. (40), E. de Harne (71), W. H. Hoogs, Sr. (57), R. W. Breckons (51), Mrs. Jane Mist (78).

MISCELLANEA.

Local made cement again looms up as a possibility by the locating of a gravel pit of material similar to that of Portland cement. With the success of Maui's effort in producing a first-class article, and the increasing need of this product in all construction and road work would seem to warrant the establishment of this new enterprise.

Daylight saving plan was again agitated for these islands the early part of this year, and, in April, on official orders from Washington, the navy department here set their clocks forward an hour, but it did not last long. Cutting a foot off the end of Pat's blanket to add to its head was found to give no greater length or warmth.

Dedication of the new Hongwanji Buddhist temple, on upper Fort street, began its services August 3rd, lasting several days, and on September 15th the Daijinju Shrine to the Sun God, on Liliha street, was dedicated. Another on King street beyond Pawaa is nearing completion.

Olaa Plantation has contracted for a paper mill plant at an expenditure of \$185,000, for the manufacture of mulching paper for its own use from its bagasse, of a capacity of sixteen tons per day.

The decennial census of the United States will take place next year, though it may not include the Philippines, according to the bill before Congress in March last.

Hilo was visited by a five-foot tidal wave September 6th, but fortunately doing little material damage.

The Civic Convention which was to have been held on Maui this year was passed over owing to war activities.

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.

Those marked with an asterisk (*) are planters only; those marked with a dagger (†) are mills only; all others are plantations complete, owning their own mills. (Corrected to November 1, 1918.)

Name.	Location.	Manager.	Agents.
Apokaa Sugar Co.*	Ewa, Oahu	G. F. Renton	Castle & Cooke, Ltd.
Ewa Plantation	Ewa, Oahu	G. F. Renton	Castle & Cooke, Ltd.
Gay & Robinson*	Makaweli, Kauai	S. Robinson	H. Waterhouse Trust Co., Ltd.
Grove Farm*	Nawiliwili, Kauai	Edwin Broadbent	American Factors, Ltd.
Hakalau Plantation Co.	Hilo, Hawaii	J. M. Ross	C. Brewer & Co., Ltd.
Halawa Sugar Co.	Kohala, Hawaii	H. H. Perry	T. H. Davies & Co., Ltd.
Hamakua Mill Co.	Hamakua, Hawaii	A. Lidgate	T. H. Davies & Co., Ltd.
Hawi Mill and Plantation Co.	Kohala, Hawaii	John Hind	Hind, Rolph & Co.
Hawaiian Agricultural Co.	Kau, Hawaii	Jas. Campsie	C. Brewer & Co., Ltd.
Hawaiian Commercial & Sugar Co.	Puunene, Maui	F. F. Baldwin	Alexander & Baldwin, Ltd.
Hawaiian Sugar Co.	Makaweli, Kauai	B. D. Baldwin	Alexander & Baldwin, Ltd.
Hawaii Mill Co.†	Hilo, Hawaii	Jas. Henderson	C. Brewer & Co., Ltd. ¹
Hilo Sugar Co.	Hilo, Hawaii	John A. Scott	C. Brewer & Co., Ltd.
Honolulu Plantation Co.	Halawa, Oahu	Jas. Gibb	C. Brewer & Co., Ltd.
Honokaa Sugar Co.	Honokaa, Hawaii	W. P. Naquin	F. A. Schaefer & Co., Ltd.
Honomu Sugar Co.	Hilo, Hawaii	Wm. Pullar	C. Brewer & Co., Ltd.
Hutchinson Sugar Plantation Co.	Kau, Hawaii	Geo. Gibb	C. Brewer & Co., Ltd.
Kaeleku Sugar Co.	Hana, Maui	J. Chalmers	T. H. Davies & Co., Ltd.
Kahuku Plantation	Kahuku, Oahu	Andrew Adams	Alexander & Baldwin, Ltd.
Kaiwiki Sugar Co.	Ookala, Hawaii	Jas. Johnston	T. H. Davies & Co., Ltd.
Kaiwiki Milling Co.†	Hilo, Hawaii		Fred. L. Walron, Ltd. ¹
Kekaha Sugar Co.	Kekaha, Kauai	H. P. Faye	American Factors, Ltd.
Kilauea Sugar Plantation Co.	Kilauea, Kauai	L. D. Larsen	C. Brewer & Co., Ltd.
Kipahulu Sugar Co.	Kipahulu, Maui	J. Fassoth	American Factors, Ltd.
Kohala Sugar Co.	Kohala, Hawaii	Geo. C. Watt	Castle & Cooke, Ltd.

¹ Selling agents.

List of Sugar Plantations, Mills and Cane Growers Throughout the Islands.—Continued.

Name.	Location.	Manager.	Agents.
Koloa Sugar Co.....	Koloa, Kauai.....	E. Cropp	American Factors, Ltd.
Kona Development Co.....	Kona, Hawaii	T. Konna	H. Waterhouse Trust Co., Ltd.
Koolau Agricultural Co.*.....	Koolau, Oahu	S. E. Woolley	Alexander & Baldwin, Ltd.
Lale Plantation*.....	Lale, Oahu	S. E. Wooley	T. H. Davies & Co., Ltd.
Laupahoehoe Sugar Co.....	Laupahoehoe, Haw.....	R. Hutchinson	American Factors, Ltd.
Lihue Plantation Co.....	Lihue, Kauai	R. D. Moler.....	American Factors, Ltd.
Makee Sugar Co.....	Kealia, Kauai	H. Wolters	Alexander & Baldwin, Ltd.
Maui Agricultural Co.....	Haiku, etc., Maui.....	H. A. Baldwin.....	Alexander & Baldwin, Ltd.
McBryde Sugar Co.....	Wahiawa, Kauai	F. A. Alexander.....	T. H. Davies & Co., Ltd.
Niuli Mill & Plantation.....	Kohala, Hawaii	Robert Hall	American Factors, Ltd.
Oahu Sugar Co.....	Waipahu, Oahu	E. K. Bull	
Olao Sugar Co.....	Olao, Hawaii	C. F. Eckart.....	
Olowalu Co.....	Olowalu, Maui	Alexr. Valentine	C. Brewer & Co., Ltd.
Onomea Sugar Co.....	Hilo, Hawaii	John T. Moir.....	C. Brewer & Co., Ltd.
Paaupau Sugar Plantation Co.*.....	Hamakua, Hawaii	F. M. Anderson.....	C. Brewer & Co., Ltd.
Pacific Development Co., Ltd.*.....	Pahoa, Hawaii.....	A. R. Henderson.....	Fred. L. Waldron, Ltd.
Pacific Sugar Mill (†).....	Kukuihaele, Hawaii	W. P. Naquin.....	F. A. Schaefer & Co., Ltd.
Pepeskeo Sugar Co.....	Hilo, Hawaii	Jas. Webster	C. Brewer & Co., Ltd.
Pioneer Mill Co., Ltd.....	Lahaina, Maui	A. W. Collins.....	American Factors, Ltd.
Puakea Plantation Co.....	Kohala, Hawaii	Geo. Buckholtz.....	H. Waterhouse Trust Co., Ltd.
Union Mill Co.....	Kohala, Hawaii	H. H. Renton.....	T. H. Davies & Co., Ltd.
Waiakea Mill Co.....	Hilo, Hawaii	D. Forbes	T. H. Davies & Co., Ltd.
Waialua Agricultural Co.....	Waialua, Oahu	W. W. Goodale.....	Castle & Cooke, Ltd.
Waianae Plantation	Waianae, Oahu	Fred. Meyer	J. M. Dowsett
Wailuku Sugar Co.....	Wailuku, Maui	H. B. Penhallow.....	C. Brewer & Co., Ltd.
Waimanalo Sugar Co.....	Waimanalo, Oahu	Geo. Chalmers	C. Brewer & Co., Ltd.
Waimaea Sugar Mill Co.....	Waimaea, Kauai	G. R. Ewart, Jr.....	American Factors, Ltd.

HAWAIIAN SUGAR CROPS, IN TONS, 1913-18.

From Tables Prepared for Hawaiian Planters' Association by
its Bureau of Labor and Statistics.

Prior years of this table, originating in 1891, will be found in Annuals
since 1901.

Islands.	1913	1914	1915	1916	1917	1918
Production of Hawaii	197,415	217,654	240,785	197,654	232,132	163,192
" " Maui	124,819	144,940	160,283	150,312	147,648	137,786
" " Oahu	124,228	133,560	129,997	136,966	145,550	162,152
" " Kauai	100,336	120,884	115,380	108,551	119,244	113,712
Grand Total.....	546,798	617,038	646,445	593,483	644,574	576,842
Hawaii Plantations.						
Waiakea Mill Co....	13,076	14,922	16,141	14,484	14,876	8,259
Hawaii Mill Co.....	2,855	3,601	3,793	1,845	3,653	2,203
Hilo Sugar Co.....	14,033	18,937	17,905	16,450	16,150	12,834
Onomea Sugar Co....	16,887	19,600	21,320	18,732	21,067	16,923
Pepeekeo Sugar Co..	8,951	9,806	11,948	9,345	11,040	8,281
Honomu Sugar Co....	7,004	8,567	9,852	6,557	9,576	6,685
Hakalau Plant. Co...	15,402	16,863	19,327	15,951	20,235	14,369
Laupahoehoe Sgr. Co.	9,671	11,193	11,730	10,174	11,302	14,626
Kaiwiki Sugar Co....	5,140	6,932	6,849	5,013	7,191	4,625
Kukaiiau Plant. Co...	2,078	)				
Kukaiiau Mill Co....	1,385	)3,225	4,672	3,118	5,056	.....
Hamakua Mill Co....	6,845	7,057	9,261	7,661	9,926	5,873
Paaupau S. Plant. Co.	9,958	10,767	10,073	7,859	10,868	5,140
Honokaa Sugar Co....	10,103	7,272	8,613	7,232	9,031	4,696
Pacific Sugar Mill...	5,938	6,250	7,253	5,656	7,970	4,713
Niuli Mill and Plant.	2,803	2,700	3,098	2,110	2,556	2,102
Halawa Plantation...	1,641	2,087	2,840	1,705	2,559	1,310
Kohala Sugar Co....	5,675	4,475	7,780	4,170	6,427	4,349
Union Mill Co.....	1,769	2,608	3,437	1,966	2,392	1,169
Hawi Mill and Plant..	6,489	6,745	9,426	6,461	9,045	3,659
Kona Developm't Co.	2,943	3,477	3,444	144	4,555	1,762
Hutchinson S. Pl. Co.	5,510	5,909	6,781	9,723	6,647	5,645
Hawaiian Agrl. Co....	12,856	17,890	16,407	13,818	12,385	13,067
Puakea Plantation...	839	1,035	1,429	963	937	690
Olaa Sugar Co.....	27,399	25,736	27,406	26,476	26,698	20,212
Puako Plantation....	185	.....	.....	.....	.....	.....
	197,415	217,654	240,785	197,654	232,132	163,192

HAWAIIAN SUGAR CROPS, 1913-18—Continued.

Maui Plantations.	1913	1914	1915	1916	1917	1918
Kipahulu Sugar Co..	1,408	2,426	2,699	848	1,510	1,240
Kaeleku Plant. Co.*..	4,938	6,225	6,605	6,721	6,240	6,512
Maui Agri. Co.	24,633	33,660	39,620	34,011	35,795	30,627
Hawn. Coml. & S. Co.	50,310	56,500	56,780	59,035	53,812	57,750
Wailuku Sugar Co...	13,988	16,100	19,177	15,094	15,038	10,271
Olowalu Co.	1,738	2,027	2,173	1,850	1,974	2,000
Pioneer Mill Co., Ltd.	27,804	28,302	33,229	32,753	33,279	29,386
	124,819	144,940	160,283	150,312	147,648	137,786
Oahu Plantations.						
Waimanalo Sgr. Co..	4,287	5,133	5,260	5,018	4,953	5,303
Laie Plantation	977	1,600	1,171	1,541	1,178	1,891
Kahuku Plant. Co...	6,215	8,193	7,823	6,534	8,317	7,830
Waialua Agri. Co...	29,751	30,298	31,156	31,227	29,941	33,251
Waianae Co.	5,226	0,083	6,400	4,626	6,115	5,815
Ewa Plantation Co...	29,512	29,563	29,502	32,045	34,748	33,841
Apokaa Sugar Co...	381	925	356	793	939	690
Oahu Sugar Co.	28,142	33,474	29,619	33,625	37,211	50,005
Honolulu Plant. Co..	19,337	20,154	18,233	20,586	21,562	22,042
Koolau Agri. Co.	400	1,137	487	971	586	1,484
	124,228	133,560	129,997	136,996	145,550	162,152
Kauai Plantations.						
Kilauea S. Plant. Co.	5,451	6,426	6,733	5,216	5,924	5,335
Makee Sugar Co.	7,418	10,660	10,944	5,138	13,509	11,641
Lihue Plantation Co.	19,819	22,065	21,492	20,168	20,174	18,424
Grove Farm Plntr...	3,695	4,415	4,007	3,569	3,836	3,790
Koloa Sugar Co.	5,886	8,572	9,502	7,955	9,206	9,400
McBryde Sugar Co...	14,569	16,345	15,458	15,598	17,407	15,639
Hawaiian Sugar Co..	22,308	26,826	24,706	23,194	23,534	22,673
Gay & Robinson.	4,821	5,172	5,259	4,650	4,510	5,661
Waimea Sgr. Mill Co.	1,610	2,258	1,404	2,054	1,965	2,203
Kekaha Sugar Co...	14,008	17,153	15,078	16,107	18,354	17,986
Estate of V. Knudsen	811	992	795	902	925	960
Total.	100,336	120,884	115,380	108,551	119,244	113,712

* Formerly Hana Plantation.

TERRITORIAL REGISTER AND DIRECTORY FOR 1919.

Corrected to December 1, 1918.

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H. W. Kinney..Supt. Public Instruction
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Second Judge 1st Circuit, Oahu.....
.....Hon. Jno. T. De Bolt
Third Judge 1st Circuit, Oahu.....
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Third Circuit, Hawaii.....
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Stenographer, Supreme Court.....
.....Miss Kate Kelly
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 Booth, A. J. Campbell, F. O. Boyer,
 F. E. Steere, A. J. Wirtz.
 Maui—W. H. Field, W. J. Cooper, Geo.
 Weight, G. Freeland, W. A. McKay.

Hawaii—D. Ewaliko, B. K. Baird, Jas. Webster, H. A. Truslow.
 Kauai—J. H. Moragne, H. H. Brodie, J. M. Lydgate, E. E. Mahlum.

CIVIL SERVICE COM. BRD. HEALTH.
 W. C. McGonagle, T. J. Fitzpatrick
 Dr. F. F. Hedemann.

BOARDS OF EXAMINERS.

Medical—Dr. R. W. Benz, Dr. J. R. Judd, Dr. Grover A. Batten.
 Pharmacy—H. H. Morehead, Dr. F. F. Hedemann, A. J. Gignoux.
 Dental—O. E. Wall, M. E. Grossman, F. E. Clark.
 Veterinary—V. A. Norgaard, W. T. Mon-sarratt, J. C. Fitzgerald.

COMMISSIONERS OF INSANITY.

L. J. Warren.....Chairman
 Drs. C. B. Cooper, G. Herbert.

PUBLIC UTILITIES COMMISSION. Established 1913.

Chairman W. T. Carden
 Member.....A. J. Gignoux

CHAMBER OF COMMERCE OF HONOLULU.

Reorganized May 27, 1914.

W. F. Dillingham.....President
 F. C. Atherton.....First Vice-President
 A. Lewis, Jr.....Second Vice-President
 E. W. Sutton.....Treasurer
 Raymond C. Brown.....Secretary
 Directors—J. J. Belser, E. A. Berndt,
 W. W. Chamberlain, J. L. Cockburn,
 R. A. Cooke, G. P. Denison, J. H. Drew,
 W. F. Frear, A. J. Gignoux,
 John Guild, F. D. Lowrey, L. Tenney
 Peck, H. E. Vernon, J. T. Warren,
 John Waterhouse, G. P. Wilder, J. N. S. Williams.

MAUI CHAMBER OF COMMERCE.

President.....R. A. Wadsworth
 Vice-President.....H. W. Rice
 Secretary.....D. H. Case
 Treasurer.....C. D. Lufkin

HILO BOARD OF TRADE.

Organized

President.....G. H. Vicars
 Vice-President E. N. Deyo
 Secretary.....B. C. Stewart
 Treasurer.....E. F. Nichols

KAUAI CHAMBER OF COMMERCE.

Organized 1913.

President T. Brandt
 Vice-President.....R. D. Moler
 Secretary.....J. M. Lydgate
 Treasurer.....J. I. Silva
 Auditor.....W. N. Stewart

HAWAII PROMOTION COMMITTEE.

E. A. Berndt.....Chairman
 J. D. McInerny, A. F. Wall, C. O. McKenzie, A. H. Ford, Clifford Kimball (Oahu), W. O. Aiken (Maui), James Henderson (Hawaii), W. H. Rice, Jr. (Kauai), Fred. J. Halton, Secretary.

HONOLULU STOCK AND BOND EXCHANGE.

Organized August 8, 1898.

President.....W. A. Love
 Vice-President.....C. G. Heiser
 Secretary.....D. L. Conkling
 Treasurer.....H. Waterhouse Trust Co.

HAWAIIAN SUGAR PLANTERS' ASSOCIATION.

Re-organized Nov. 18, 1895.

President.....E. H. Wodehouse
 Vice-President.....Jno. Waterhouse
 Secretary and Treasurer.....W. O. Smith
 Assistant Sec.-Treas.....L. J. Warren
 Auditor.....J. W. Waldron

EXPERIMENT STATION OF PLANT- ERS' ASSOCIATION.

Station Staff.

H. P. Agee.....Director
 R. C. L. Perkins.....Consulting Entomologist
 Otto H. Swezey, F. Muir.....Entomologists
 P. H. Timberlake, F. X. Williams.....Asst. Entomologists
 H. L. Lyon.....Pathologist
 E. L. Caum, M. L. Hartmann.....Asst. Pathologists
 R. S. Norris.....Sugar Technologist
 W. R. McAllep.....Asst. Sugar Technologist
 P. S. Burgess.....Chemist
 A. Brodie, C. E. Warriner, F. R. Werthmueller.....Asst. Chemists
 J. P. Melanphy.....Fertilizer Sampler
 J. A. Verret, R. S. Thurston, R. M. Allen.....Assoc. and Asst. Agriculturists
 W. R. R. Potter.....Illustrator
 H. B. Campbell.....Business Agent

HAWAII RATING BUREAU

Jas. M. Macconel.....President
 Edwin Benner.....Vice-President
 Bernard Froiseth.....Secretary
 H. Waterhouse Trust Co.....Treasurer
 Audit Co. of Hawaii.....Auditor

HAWAIIAN CHEMISTS' ASSOCIATION

President.....P. S. Burgess
 Vice-President.....W. P. Foster
 Secretary-Treasurer.....S. S. Peck

BOARD OF MARINE UNDERWRITERS —AGENCIES

Boston.....C. Brewer & Co.
Philadelphia.....C. Brewer & Co.
New York.....Bruce Cartwright
Liverpool.....Theo. H. Davies & Co.
Lloyds, London...Theo. H. Davies & Co.
San Francisco.....Bishop Ins. Agency

BOARD OF FIRE UNDERWRITERS OF TERRITORY OF HAWAII.

Jno. Waterhouse..... President
Z. K. Myers.....Vice-President
B. Frosette..... Secretary
H. Waterhouse Trust Co.....Treasurer
Audit Co. of Hawaii.....Auditor

HAWAII RATING BUREAU

Jas. M. Macconel.....President
Edwin Benner.....Vice-President
Bernard Froiseth.....Secretary
H. Waterhouse Trust Co.....Treasurer
Audit Co. of Hawaii.....Auditor

QUEEN'S HOSPITAL.

Erected in 1860.

President.....Geo. W. Smith
Vice-President.....A. G. M. Robertson
Secretary.....John Guild
Treasurer.....Geo. C. Potter
Auditor.....Audit Co. of Hawaii
Resident Physician...Dr. R. J. Mermod
Superintendent....Dr. H. T. Hollmann
Bookkeeper.....E. J. Rego
Asst. Supt.....Miss Helen Macfarlane
Head Nurse.....Miss Marion Rowland
Housekeeper.....Mrs. F. Kuhlmann
Trustees—A. J. Campbell, G. W. Smith,
G. C. Potter, Edgar Henriques, John
Guild, A. G. M. Robertson, G. H.
Brown.

LEAHI HOME.

Organized April 4, 1900.

President.....A. A. Young
Vice-Presidents
Father Valentin, C. Montague Cooke
Secretary.....C. R. Hemenway
Treasurer.....A. W. T. Bottomley
Auditor.....G. P. Denison
Medical Supt. A. N. Sinclair, M. B. C. M.
Asst. Supt.....Robt. Anderson
Matron.....Mrs. A. B. Chamberlain
Nurses.....Miss McBryde, Miss Ford
Clerk.....L. J. Fagg

CHILDREN'S HOSPITAL.

Opened Nov. 24, 1909.

President.....S. B. Dole
Vice-President.....E. A. Mott-Smith
Secretary.....Miss A. Budd
Treasurer.....W. O. Smith
Auditor.....Audit Co. of Hawaii
Superintendent....Miss J. N. Dewar
Trustees—S. B. Dole, W. O. Smith, J.
A. Balch, A. S. Wilcox, Allen Her-
bert, Geo. B. Isenberg, E. A. Mott-
Smith.

HOSPITAL FLOWER SOCIETY.

President.....
Vice-President.....Mrs. R. D. Mead
Secretary.....Mrs. A. J. Gignoux
Treasurer.....Mrs. W. F. Soper

SAILORS' HOME SOCIETY.

Organized 1853.

Meets annually in December.

President.....
Secretary.....C. H. Atherton
Treasurer.....Jno. Waterhouse
Trustee.....J. A. Kennedy

DAUGHTERS OF HAWAII.

Hon. Regent.....Mrs. B. F. Dillingham
Presiding Regent...Mrs. F. M. Swanzy
First Vice-Regent...Mrs. Laura Wight
Second Vice-Regent..Mrs. J. P. Erdman
Historian.....Mrs. L. Webb
Cor. Secretary.....Mrs. L. D. Stubbs
Rec. Secretary.....Mrs. G. C. Potter
Treasurer.....Miss M. Ahrens

TERRITORIAL LIBRARY.

HONOLULU LIBRARY ASSOCIATION.

Organized March.

Incorporated June 24, 1879.

President.....Prof. M. M. Scott
Secretary.....J. H. Fisher
Treasurer.....A. Gartley
Auditor.....J. H. Fisher

LIBRARY OF HAWAII.

Trustees.

C. H. Atherton.....President
Rev. H. B. Restarick...Vice-President
J. F. Blake.....Treasurer
Rev. W. D. Westervelt...Secretary
A. Lewis, Jr., Mrs. L. L. McCandless,
A. Gartley.

Library Staff.

Edna I. Allyn.....Librarian
Maud Jones, Alice E. Burnham...Assts.
Mary F. Carpenter.....Cataloguer
Carrie P. Green.....Reference Librarian
Mary S. Lawrence.....Children's Librarian
Akana K. Ma.....Clerk
Helen J. Stearns.....Islands Dept.

HAWAIIAN HISTORICAL SOCIETY.

Organized Jan. 11, 1892.

President.....S. B. Dole
Vice-Presidents.....Mrs. W. F.
Frear, W. A. Bowen, Rev. L. Kroll
Recording Secretary...H. M. von Holt
Cor. Secretary.....W. D. Westervelt
Treasurer.....Jno. L. Fleming
Librarian.....Miss E. I. Allyn

KAUAI HISTORICAL SOCIETY.

President.....Wm. Hyde Rice
Vice-President.....J. M. Lydgate
Sec.-Treas.....Miss E. N. Wilcox

Board of Trustees.

Museum Staff.

BAR ASSOCIATION OF HAWAII.

Organized June 28, 1899.

HAWAIIAN PHILATELIC SOCIETY.

Organized April 13, 1911.

Y. M. C. A. CHESS CLUB.

Organized Oct. 17, 1913.

HAWAIIAN MEDICAL ASSOCIATION

Organized May 24, 1895.

HAWAIIAN SOCIETY SONS OF THE
AMERICAN REVOLUTION.

Organized June 17, 1895.

ALOHA CHAPTER, DAUGHTERS OF
THE AMERICAN REVOLUTION.

State Regent.....Mrs. A. Francis Judd
Capt. Regent.....Mrs. Hermann Hugo
Vice-Regent.....Mrs. J. M. Atherton
Recording Sec.....Mrs. S. C. Goodknight
Treasurer.....Miss Charlotte V. Hall
Registrar.....Mrs. C. B. Andrews
Historian.....Mrs. J. W. Caldwell
Chaplain.....Mrs. Jessica Pascoe

HAWAIIAN EVANGELICAL
ASSOCIATION.

Originally Organized 1823.

Constitution revised 1863. Annual Meeting June.

President.....F. J. Lowrey
Vice Presidents
.....A. C. Alexander, Walter F. Frear
Cor. Secty.....Rev. H. P. Judd
Rec. Secretary.....Rev. J. L. Hopwood
Treasurer.....Theo. Richards
Auditor.....W. A. Bowen

WOMAN'S BOARD OF MISSIONS.

Organized 1871.

President.....Mrs. Theo. Richards
Vice-Presidents—Miss Alice Knapp, Mrs.
H. P. Judd.
Recording Secty....Mrs. R. D. Williams
Home Cor. Secty.....Edgar Wood
Foreign Cor. Secty.....Miss A. E. Judd
Treasurer.....Mrs. B. F. Dillingham
Asst. Treasurer.....Miss C. C. Varney
Auditor.....W. J. Forbes

MISSION CHILDREN'S SOCIETY.

Organized 1851. Annual Meeting June.

President..... Gerrit P. Wilder
Vice-President..... W. W. Chamberlain
Secretary..... Mrs. R. W. Andrews
Recorder..... R. W. Andrews
Treasurer..... L. A. Dickey

YOUNG MEN'S CHRISTIAN
ASSOCIATION.

Organized 1869. Annual Meeting April.

President.....W. G. Hall
Vice-President.....Ed. Towse
Treasurer.....R. A. Cooke
Rec. Secretary.....Chas. F. Clemons
Executive Secty.....Arthur E. Larimer
Membership Secty.....Richard Vilim
Business Secty.....Floyd H. Emmans
Educational Secty.....Rolla K. Thomas
Physical Director.....Robt. Stone
Community Boys' Secy.Saml. W. Robley
Boys' Dept. Secty.....W. W. Sharrar

ARMY AND NAVY Y. M. C. A.

Organized Aug. 3, 1917.

Committee of Management -- James Wakefield, chairman; F. D. Lowrey, Treas.; E. A. Berndt, Arthur G. Smith, Dr. James A. Morgan, John Waterhouse.

Executive Officers

Urban Williams...Supervising Secretary
Howard N. Mosher...Associate Secretary
F. R. Dudley, Chas. F. Loomis, Geo. N. Culfee, Geo. B. Wesson.....
.....Asst. Secretaries

YOUNG WOMEN'S CHRISTIAN ASSOCIATION.

Organized 1900.

Hon. President...Mrs. B. F. Dillingham
President.....Mrs. W. F. Frear
Secretary.....Mrs. F. C. Atherton
Cor. Secretary...Mrs. C. M. Cooke, Jr.
Treasurer.....Mrs. I. J. Shepherd
Gen. Secty.....Miss Grace Channon

FREE KINDERGARTEN AND CHILDREN'S AID ASSOCIATION.

Organized 1895.

President.....Mrs. F. M. Swanzy
Vice-Presidents.....
Mrs. W. F. Frear, Mrs. Theo. Richards
Recording Secty.....Mrs. I. M. Cox
Treasurer.....Mrs. E. A. Rath
Auditor.....J. L. Cockburn

ASSOCIATED CHARITIES.

Organized June 7, 1899.

President.....Jas. L. Cockburn
1st Vice-President.....Riley H. Allen
2nd Vice-President.....Mrs. A. F. Wall
Treasurer.....G. C. Potter
Secty. and Manager...Miss B. E. Smith
Auditor.....Henry Davis

STRANGERS' FRIEND SOCIETY.

Organized 1852. Annual Meeting June.

President.....Mrs. A. Fuller
Vice-President.....Mrs. A. A. Young
Secretary.....Mrs. S. M. Damon
Treasurer.....Mrs. E. W. Jordan
Auditor.....E. W. Jordan
Directress.....Mrs. E. B. Waterhouse

BRITISH BENEVOLENT SOCIETY.

Organized 1869.

President (ex-officio)...H.B.M.'s Consul
Vice-President.....Rev. Wm. Ault
Secretary.....W. C. Shields
Treasurer.....H. B. Sinclair

HAWAIIAN HUMANE SOCIETY.

President.....Mrs. M. F. Prosser
Acting President.....Mrs. T. J. King
Hon. President.....Mrs. S. M. Damon
Vice-Presidents--Mrs. R. D. Walbridge, Mrs. E. P. Low
Secretary.....Miss E. Damon
Treasurer.....Mrs. E. A. Mott-Smith
Auditor.....J. O. Young
Agent.....Miss M. L. Smith
Hon. Agent.....Miss Lucy K. Ward

OAHU CEMETERY ASSOCIATION.

President.....F. J. Lowrey
Vice-President.....S. G. Wilder
Secretary.....H. H. Walker
Treasurer.....Hawaiian Trust Co.

ANTI-SALOON LEAGUE OF HAWAII.
Organized March 4, 1901.

Superintendent.....John W. Wadman
President.....Theo. Richards
Vice-President.....Akaiako Akana
Vice-Pres. Honorary.Mrs. J. M. Whitney
Secretary.....Geo. W. Paty
Treasurer.....W. A. Bowen

THE OUTDOOR CIRCLE.

(For the beautifying of Honolulu.)

President.....Mrs. A. A. Young
1st Vice-President.....Mrs. I. M. Cox
2d Vice-President...Mrs. G. M. French
Secretary.....Mrs. W. L. Moore
Treasurer.....Mrs. Z. K. Myers
Ex. Officer.....Mrs. A. E. Murphy

PACIFIC CLUB.

Organized 1852. Premises on Alakea Street, two doors below Beretania.

President.....A. J. Campbell
Vice-President.....E. I. Spalding
Secretary.....W. H. Lewers
Treasurer.....R. E. McGrew

HAWAIIAN VOLCANO RESEARCH ASSOCIATION.

President.....L. A. Thurston
Vice-President.....W. D. Westervelt
Vice-President.....C. M. Cooke
Treasurer.....L. T. Peck
Secretary.....L. W. de Vis-Norton
Observatory Director.....
.....Dr. T. A. Jaggar, Jr.

COMMERCIAL CLUB OF HONOLULU.

Organized Aug. 30, 1906.

President.....J. J. Belser
Vice-President.....Ed Towse
Secretary.....G. T. Kluegel
Treasurer.....B. E. Noble

BRITISH CLUB.

President.....Fred. Harrison
Vice-President.....Geo. Bustard
Secretary.....J. Hay Wilson
Treasurer.....F. W. Jamison
Auditor.....H. D. Young

COUNTRY CLUB.

Organized 1906.

President.....R. B. Booth
1st Vice-President.....W. H. McInerney
2nd Vice-President.....A. G. Smith
Secretary.....G. H. Buttolph
Treasurer.....

OUTRIGGER CLUB.

Organized May, 1908.

President.....Warren Dease
 Vice-President.....A. Walker
 Secretary.....W. J. Dickson
 Treasurer.....I. Lemon
 Captain.....G. D. Center

WOMEN'S AUXILIARY.

President.....Mrs. F. M. Swanzy
 Vice-President.....Mrs. A. Fuller
 Treasurer.....Mrs. W. J. MacNiel
 Secretary.....Mrs. W. A. Wall

HUI NALU (Surf Club).

Organized 1911.

President.....Harold Castle
 Vice-President.....Al. Castle
 Secretary.....Robt. McB. Purvis
 Treasurer.....George I. Brown
 Commodore.....Duke Kahanamoku
 Captain.....J. K. Evans
 Auditor.....Thos. Tredway

HAWAIIAN ASSOCIATION, A. A. U.

President.....W. T. Rawlins
 Vice-President.....Geo. W. Dyson
 Sec.-Treas. Mrs. F. L. Leo
 Registration Com.—J. F. Soper, W.
 T. Rawlins, G. C. Jackson.

**KONA IMPROVEMENT CLUB,
HAWAII**

Organized 1912.

Rev. Albert S. Baker.....President
 F. R. Greenwell.....Vice-President
 W. D. McKillop.....Treasurer
 L. Macfarlane.....Secretary
 Executive Committee --- Rev. A. S.
 Baker, Chairman; L. Macfarlane,
 W. McQuaid, T. C. White, R. Wal-
 lace, A. L. Greenwell, W. D. McKillop.

AD CLUB.

President.....C. R. Frazier
 1st Vice-President.....P. M. Pond
 2nd Vice-President.....Thos. Sharp
 Secretary.....Fred. Halton
 Treasurer.....C. K. Medcalf

HONOLULU FIRE DEPARTMENT.

Originally organized 1851, and conduct-
 ed as volunteers till March 1, 1893,
 when it was changed to a paid dept.
 Chief Engineer—Chas. Thurston.
 Asst. Engineer—Wm. Blaisdell.
 Engine No. 1—Location Central Station,
 cor. Fort and Beretania streets.
 Engine No. 2—Location, Central Sta-
 tion, cor. Fort and Beretania Sts.
 Chemical Co. No. 1—Location, Central
 Station, cor. Fort and Beretania Sts.
 Hook and Ladder Truck—Location, Cen-
 tral Station, cor. Fort and Beretania.
 Engine Co. No. 3—Location cor. Wilder
 avenue and Piikoi street.
 Engine Co. No. 4—Location King street
 and Austin lane.
 Engine Co. No. 5—Location Kaimuki.

OAHU COLLEGE.

Administrative Officers.

Arthur F. Griffiths, A.M.....President
 Levi C. Howland.....Ast. to the Pres.

Academy Teachers.

Misses Susan Clark, Charlotte Dodge,
 Antoinette Foster, Marie Johnston,
 Catherine Johnson, Edith Knights;
 Arthur Griffiths, Mrs. Edith Guild,
 L. C. Howland, O. B. Loewen, H. M.
 Luquiens, Wm Mather, W. J. Mac-
 Neil, C. F. Schmutzler, Mrs. Eda A.
 Schmutzer, Mrs. Ruth Thompson.

Junior Academy.

C. T. Fitts, Albert Conrad, Misses Wilda
 Davis, Helen Hasty, Evangeline
 Holmes, Dora Kirwin, Jane Knox,
 Elizabeth Low, Daisy Newby, Daisy
 Spry, Deborah Walsh, John Horn,
 Mrs. Irmgard Horn.

Elementary School.

Misses Emma Barnhard, Gertrude
 Blake, Florence Carter, Alice Castle,
 Lucy Doggett, Florence Jackson,
 Anna Johnson, Mrs. O. B. Loewen,
 Misses Frances Mowrey, Madeline
 McMahon, Gladys McRae, Beatrice
 Perry, Edith Phillips Anna M. Rian,
 Maurine Samson, Claire Uecke, Bes-
 sie Walthall, Mary Winne, Jane
 Winne, Ruth Woodford.

Special Teachers.

Miss Margaret Clarke, Mrs. Edith Clay-
 bourne, Misses Helen Coles, Mabel
 Hawthorne, Mrs. P. S. Ideler, Misses
 Emily Parrish, Helen Spaulding,
 Genevieve Springston, Aileen M.
 Thompson, Margaret Way, Lt. Harry
 C. Smith, H. G. Wootten, Frank Bar-
 wick.

**BOARD OF REGENTS, COLLEGE OF
HAWAII.**

Wallace R. Farrington.....Chairman
 Arthur L. Dean.....Secretary
 Regents—Alonzo Gartley, C. R. Hem-
 enway, Mrs. J. R. Ashford, A. G.
 Smith.

The Faculty.

Arthur L. Dean, A.B., Ph.D.....
Pres. and Prof. of Chemistry
 John S. Donaghho, A.B., A. M.....
Prof. of Math. and Astronomy
 John M. Young, B.S., M.E.....
Prof. of Engineering, College Engr.
 William A. Bryan, B.S., Prof. of Zoology
 Wm. C. Furer, Prof. Civil Engineering
 Frank T. Dillingham, B. S.....
Prof. of Chemistry
 Arthur L. Andrews, B.L., M.L., Ph.D
Professor of English
 Vaughan MacCaughy, B.S.A.....
Professor of Botany
 Herbert S. Walker, A.B.....
Professor of Sugar Technology

L. A. Henke, B.S...Prof. of Agronomy
 Joseph F. C. Rock.....Botanist
 Minnie E. Chipman.....
 ...Professor of Ceramics and Design
 Arnold Romberg, B.S., Ph.D.....
 ...Professor of Physics
 David L. Crawford, B.A., M.A.
 ...Professor of Entomology
 Mae Wells, A.L.....
 ...Professor of Household Science
 Mildred M. Yoder, Ph.B.....
 Instructor in History and Economics
 Mrs. M. W. Hendry.....
 ...Asst. Prof. of Modern Languages
 Elizabeth T. Kastle.....
 ...Instructor in Chemistry
 Anna von Balzen Dahl.....
 ...Instructor in Textiles
 Harvey J. Wentzel, B.S.....
 ...Instructor in Agriculture
 Alice E. Harbaugh.....
 ...Asst. in Drawing and Ceramics
 Elizabeth L. Bryan, Sc.D....Librarian
 Lt. Wm. Barnhart, B.S.....
 ...Commandant S. A. T. C.

MID-PACIFIC INSTITUTE OFFICERS.

Geo. P. Castle.....Vice-President
 Frank C. Atherton.....Treasurer
 M. L. Copeland....Assistant Treasurer
Secretary
 W. A. Bowen.....Auditor

Faculty of Mills School.

.....Principal
 H. L. Abell, Mrs. George Andrus, Miss
 Elizabeth Appleton, Bruce Cumming,
 Edmund A. Gilbert, Miss Ruth L.
 Griswold, Earl V. Harlow, Misses
 Edna Lochridge, Nola M. Magruder,
 Beulah A. Stebno, Bessie R. Wood,
 Hazel Woodruff; Arthur E. Wyman;
 Miss Elizabeth J. Jones, Ruel E.
 Mathis, Ma Wing Yue, S. Niidate,
 C. Kato.

Faculty of Kawaihau Seminary.

Mrs. Mabel S. Scudder.....Principal
 Miss Mary F. Kinney....Vice-Principal
 Miss Mary P. Campbell.....Matron
 Misses Elizabeth Niemeyer, Ruth Myl-
 roie, Hazel M. Abell, Dorothy Good-
 rich, Roselle F. Faast, Mary F. Var-
 ley, Edith V. Currier; Dr. Emily F.
 Wells, Mrs. Shida.

FACULTY AND ASSISTANTS OF
KAMEHAMEHA SCHOOLS.

Faculty—School for Boys.

Ernest C. Webster.President of Schools
 F. M. Watson.....Principal
 Earle G. Bartlett, Edwin E. Baty, Ralph
 J. Borden, Milton E. Crossman, C. H.
 Hitchcock, R. N. Hudspeth, John
 Mengel, D. H. Reamy, Uldrick
 Thompson, Miss Emma E. Winslow.

Assistants—School for Boys.

Mrs. Laura C. Hillmer.....Matron
 Miss Josephine E. Marquardt....Nurse
 George Hitchings, J. F. Livesey, Nel-
 son G. Smith, Mr. Beney.
 Miss Winifred Schaeffer..Stenographer

Faculty—School for Boys—Pre-
paratory Department.

Miss Alice E. Knapp.....Principal
 Mrs. Susie E. Davis, Misses Mildred H.
 Ayres, Nevada Moore, Maude Post.

Assistants.

Miss Bertha L. Van Auken.....Matron
 Miss Lena Babcock.....Asst. Matron
 Misses Alberta Worthington, Ester Ma-
 helona, Emily Keapo, Katherine
 Groves, Adolph G. Hottendorf.

Faculty—School for Girls.

Miss A. H. Newton.....Principal
 Misses S. K. Burgner, G. N. Carnahan,
 C. E. Church, E. P. Fisher, E. O.
 Johnston, F. A. Lemmon, W. E. Love,
 F. J. Lowe, H. E. McCracken, E. V.
 Moore, O. L. Saunders, A. D.
 Schwartz.

Misses M. C. Dower, A. W. Gilbert
Secretaries

Assistants.

Misses D. H. Bell, L. Bray, E. K. Nainoa

PRINCIPAL PUBLICATIONS.

Sunday Advertiser, issued every Sunday
 morning by the Hawaiian Gazette
 Co., Ltd. Edwd. P. Irwin, Editor.

The Daily Pacific Commercial Advertis-
 er, issued by the Hawaiian Gazette
 Co. every morning (except Sunday).
 Edwd. P. Irwin, Editor.

The Honolulu Star-Bulletin, issued every
 evening (except Sundays), by the
 Honolulu Star-Bulletin, Ltd. R. A.
 McNally, Editor. Semi-weekly issued
 on Mondays and Thursdays.

The Guide, issued every Tuesday and
 Friday morning by the Guide Pub.
 Co.

The Friend, Organ of the Hawaiian
 Board, issued on the first of each
 month. F. S. Scudder, Managing
 Editor.

The Hawaiian Church Chronicle, issued
 on the first Saturday of every month.
 Rt. Rev. H. B. Restarick, Editor.

The Paradise of the Pacific, issued
 monthly. Mrs. E. A. Langton-Boyle,
 Publisher.

The Mid-Pacific Monthly, an illustrated
 descriptive magazine. Alex. Hume
 Ford, Editor and Publisher.

The Hawaiian Forester and Agricultur-
 ist, issued monthly under direction
 of Board of Com. Agr. and Forestry.
 Daniel Logan, Editor.

The Kuokoa (native), weekly, issued ev-
 ery Friday morning by the Hawaiian
 Gazette Co., Ltd. Solomon Hanohano,
 Editor.

Aloha Aina (native), issued every Sat-
 urday. J. T. Ryan, Editor.

Ka Holomua (native), issued each Saturday.

Ka Puuhonua (native), issued each Friday, Akaiko Akana, Editor.

O Luso (Portuguese), issued weekly on Saturdays. A. H. R. Viera, Editor.

Chee Yow Shin Bo (The Liberty News), tri-weekly, Chinese.

Sun Chung Kwock Bo, tri-weekly. Chinese.

Hawaii Shinpo, issued daily in Japanese. H. Tsurushima, Editor.

The Daily Nippu Jiji, Y. Soga, Editor, issued by the Nippu Jiji Co., Ltd.

Hilo Daily Tribune, issued by the Tribune Pub. Co., Timothy Hardy, Editor.

The Daily Post-Herald, issued at Hilo by the Post-Herald, Ltd. V. L. Stevenson, Editor.

The Kohala Midget, issued each Thursday, at Kohala. Editor.

The Maui News, issued weekly at Wailuku, Maui. Wm. J. Cooper, Editor.

The Weekly Times, Wailuku, Maui, issued on Tuesday, A. V. Vetleson, Publisher.

The Garden Island, issued weekly at Lihue, Kauai. K. C. Hopper, Managing Editor.

Hoku o Hawaii, issued on Friday of each week, at Hilo. Rev. S. L. Desha, Editor.

THE HAWAIIAN ANNUAL, issued the latter part of December for the following year. Thos. G. Thrum, Editor and Publisher.

HONOLULU LODGES, ETC.

Lodge le Progres de l'Océanie No. 371, F. & A. M.; meets on the last Monday in each month in Masonic hall.

Hawaiian Lodge, No. 21, F. & A. M.; meets in its Hall, Masonic Temple, corner Hotel and Alakea streets, on the first Monday in each month.

Honolulu Chapter, No. 1, R. A. M.; meets in Masonic Hall on the third Thursday of each month.

Honolulu Commandery, No. 1, Knights Templar; meets in Masonic Hall on second Thursday of each month.

Mystic Shrine, Aloha Temple. No stated time of meeting. Meets at Masonic Hall.

Kamehameha Lodge of Perfection, No. 1, A. & A. S. R.; meets in Masonic Hall on the fourth Thursday of each month.

Nuuanu Chapter of Rose Croix, No. 1, A. & A. S. R.; meets in Masonic Hall on the first Thursday in the month.

Alexander Liholiho Council, No. 1, of Kadosh; meets on the third Monday of alternate months from February.

Honolulu Lodge, No. 409, F. & A. M.; meets at Masonic Hall every second Monday of the month.

Leahi Chapter, No. 2, Order of the Eastern Star; meets on third Monday of each month in Masonic Hall.

Lei Aloha Chapter, No. 3, Order of the Eastern Star; meets on second Saturday of each month in Masonic Temple.

Harmony Chapter, No. 4, Order of the Eastern Star, meets on third Saturday of each month in Masonic Temple, at 7:30 p. m.

Excelsior Lodge, No. 1, I. O. O. F.; meets at the hall in Odd Fellows' Building, on Fort St., every Tuesday evening.

Harmony Lodge, No. 2, I. O. O. F.; meets each Monday evening in Odd Fellows' Building, Fort street.

Pacific Degree Lodge, No. 1, Daughters of Rebekah; meets in Odd Fellows' Building, Fort street, second and fourth Thursdays of each month.

Olive Branch Rebekah, No. 2, I. O. O. F.; meets first and third Thursdays each month in Odd Fellows' Building.

Polynesian Encampment, No. 1, I. O. O. F.; meets in Odd Fellows' Building, Fort street, first and third Fridays of each month.

Canton Oahu, No. 1, P. M. I. O. O. F.; meets second Friday each month in Odd Fellows' Hall, Fort St.

Mystic Lodge, No. 2, K. of P.; meets every Friday evening at Pythian Hall, cor. Beretania and Fort streets.

Section N. 225—Endowment Rank, K. of P.; meets on the second Saturday of January, July and December in Pythian Hall.

Honolulu Temple, No. 1, Rathbone Sisters; meets in Pythian Hall, first and third Tuesday evenings of each month.

Wm. McKinley Lodge, No. 8, K. of P.; meets first and third Tuesday evenings in Pythian Hall.

Hawaiian Tribe, No. 1, I. O. Red Men; meets on first and third Thursdays of each month at Odd Fellows' Hall.

Court Lunailo No. 6600, A. O. of Foresters; meets at K. of P. Hall on first and third Wednesdays of each month.

Court Camoes No. 8110, A. O. F.; meets second and fourth Tuesday evenings of month in San Antonio Hall.

Theo. Roosevelt Camp, No. 1, Dept. of Hawaii, U. S. W. V.; first and third Saturdays, in their hall.

Honolulu Nest No. 1766, Order of Owls; meets on the second and fourth Tuesdays of each month at 7:30 p. m. in Phoenix Hall. Visiting Owls are requested to attend.

Capt. Cook Lodge, No. 353, Order Sons of St. George; meets at Pythian Hall every Thursday evening.

Court Hawaii, No. 3769, Independent Order of Foresters, meets third Monday of each month.

Damen Council, Young Men's Institute; meets second and fourth Wednesdays of each month at Catholic Mission Hall.

Honolulu Lodge, B. P. O. Elks, 616; meets every Friday evening in the Elks' Building, King street near Fort.

Honolulu Aerie, No. 140, Fraternal Order of Eagles, meets second and fourth Wednesdays each month in K. of P. Hall.

Honolulu Lodge No. 1, Modern Order of Phoenix; meets every Thursday evening at their home, cor. Fort and Beretania.

Honolulu Lodge, L. O. O. M., No. 800, meets second and fourth Thursdays of the month in Pythian Hall.

American Association of Masters and Pilots of Steam Vessels, Honolulu Harbor, No. 54; meets first Sunday of each month at 7 p. m. in Odd Fellows' Hall.

Marine Engineers' Beneficial Association No. 100; meets every second and fourth Monday nights at K. of P. Hall.

Kamehameha Lodge (native); meets last Thursday of each month in Odd Fellows' Hall.

Kauikaouli Lodge, No. 1 (native); meets on first and third Fridays each month in San Antonio Hall.

PLACES OF WORSHIP.

Central Union Church, Congregational, cor. Beretania and Richards streets; Rev. A. W. Palmer, Minister, Rev. C. A. Spaulding, associate minister. Services every Sunday at 11 a. m. and 7:30 p. m. Sunday school meets one hour before morning service. Prayer meeting Wednesday evenings at 7:30.

Kalihi Union Church, King street, Kalihi; W. B. Coale, A.B., pastor. Sunday school at 9:45 a. m. Gospel services at 11 a. m. and 8 p. m.

Methodist Episcopal Church, corner Beretania and Victoria streets; Rev. L. L. Loofbourow, pastor. Sunday services 11 a. m. and 7:30 p. m. Sunday school meets at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.

The Christian Church, Kewalo street. David Carey Peters, pastor. Sunday services at 11 a. m. and 7:30 p. m. Sunday school meets at 9:45 a. m. Prayer meeting Wednesday evenings, at 7:30.

Salvation Army, services held nightly at hall, 69 Beretania St., with Sunday services at the usual hour.

Roman Catholic Church, Fort street, near Beretania; Rt. Rev. Libert Boeynaems, Bishop of Zeugma. Services every Sunday at 10 a. m. and 4:30 p. m. Low mass every day at 6 and 7 a. m. High mass Sundays and Saints' days at 10 a. m.

St. Andrew's Cathedral, Protestant Episcopal; entrance from Emma street, near Beretania. Rt. Rev. Henry Bond Restarick, Bishop of the Missionary District of Honolulu; Rev. Wm. Ault, Vicar. Holy Communion, 7; Sunday school, 10; morning prayer, litany and sermon, 11; Hawaiian service, 3:30; evening prayer and sermon, 7:30.

Chinese Congregation. Rev. Kong Yin Tet, Curate. Services on Sunday at 11 a. m. and 7:30 p. m. Evening prayer every Wednesday at 7 p. m.

St. Clement's Chapel, Punahou. Services on Sundays. Holy Communion, 7 a. m. Morning prayer, 11 a. m.; evening prayer, 7:30 p. m. Rev. John Usborne, rector; Rev. C. H. Tracy, vicar.

Epiphany Mission, Kaimuki, Rev. F. B. Eteson, priest in charge. Sunday services at 7:30 and 11 a. m. Sunday school at 10.

First Church of Christ, Scientist, cor. Wilder and Kewalo streets. Sunday services 11 a. m. Sunday school at 9:45.

Christian Chinese Church, Fort street; Rev. Tse Kei Yuen, acting pastor. Services every Sunday at 10:30 a. m. and 7:30 p. m. Prayer meeting Wednesdays at 7:30 p. m.

German Lutheran Church, Beretania St.; Dr. A. Hoermann, pastor. Services on Sunday at 11 a. m.; Sunday school at 10 a. m.

Portuguese (Protestant) Mission; Rev. A. V. Soares, pastor. Services every Sabbath at the usual hour. Sunday school at 3 p. m. Chapel situated corner of Punchbowl and Miller streets.

Reorganized Church of Jesus Christ, Chapel on King street, near Thomas Square; Sunday school at 10 a. m.; preaching in Hawaiian at 11 a. m.; in English at 7:30 p. m.

Seventh Day Adventists; Rev. F. H. Conway, pastor. Chapel, 767 Kinau street. Sabbath school Saturdays at 10 a. m.; preaching at 11. Wednesday prayer and missionary meeting at 7:30 p. m.

Japanese Union Church (connected with Hawaiian Board Missions); Rev. T. Hori, pastor. Hold services at 10 a. m. Preaching at 11 a. m. and 7:30 p. m. Sunday services. Prayer and praise meeting Wednesdays at 7 p. m.

Korean Methodist Church, Rev. H. J. Song, pastor; Punchbowl St. near Beretania. Services at usual hours.

Japanese Methodist Church. Rev. C. Nakamura, pastor. Hold services in chapel on River street, near St. Louis College.

Japanese Church, cor. Kinau and Pensacola Sts., Rev. T. Okumura, pastor; hold regular services at the usual hours.

Bishop Memorial Chapel, Kamehameha Schools, Rev. E. E. Youtz, Chaplain. Morning services at 11.

NATIVE CHURCHES.

Kawaiahao Church, cor. King and Punchbowl streets; Rev. Akaiko Akana, pastor. Services in Hawaiian every Sunday at 11 a. m. and 7:30 p. m. Sunday school at 10 a. m. Prayer meeting Wednesdays at 7:30 p. m.

Kaumakapili Church, King street, Palama. Rev. H. K. Poepoe, pastor; Rev. S. K. Kamaopili, assistant. Sunday services at the usual hours.

COUNTY OFFICIALS.

CITY AND COUNTY OF HONOLULU.

Mayor.....Joseph J. Fern
Sheriff.....Chas. H. Rose
Clerk.....D. Kalauokalani
Auditor.....Jas. Bicknell
Treasurer.....D. L. Conkling
City and County Attorney...A. M. Brown
Supervisors—Wm. Ahia, Chas. N. Arnold, C. H. Bellina, Ben Hollinger, W. H. McClellan, E. A. Mott-Smith, Lester Petrie.

County Engineer.....A. S. Cantin
Chief Engineer Fire Dept.—Chas. H. Thurston.

Asst. Engineer Fire Dept. — Wm. Blaisdell.

Supt. Electric Light Dept. and Police and Fire Alarm System—W. L. Frazee.

1st Deputy County Attorney—A. M. Cristy.

2nd Deputy County Attorney—Chas. A. Davis.

Prosecuting Attorney, Police Court —C. F. Chillingworth.

Bandmaster Hawaiian Band—Robert H. Baker.

Supt. Public Parks—W. R. Hobby.

COUNTY OF MAUI.

Sheriff.....Clement Crowell
Attorney.....E. R. Bevans
Auditor.....Charles Wilcox
Treasurer.....L. M. Baldwin
Clerk.....W. F. Kaae
Supervisors—S. E. Kalama, chairman; D. T. Fleming, R. A. Drummond, P. Cockett, J. N. Uahinui.

COUNTY OF HAWAII.

Sheriff.....Samuel K. Pua
Auditor.....S. M. Spencer
Clerk.....Archibald Hapai
Attorney.....W. H. Beers
Treasurer.....Chas. Swain
Physician.....C. L. Stow
Supervisors—S. Kauhane, chairman; J. R. Yates, A. M. Cabrinha, E. H. Lyman, W. A. Todd, Jas. Ako, A. Akana.

COUNTY OF KAUAL.

Sheriff.....W. H. Rice, Jr.
Auditor.....Carl Maser
Clerk.....J. M. Kaneakua
Attorney.....S. K. Kaeo
Treasurer.....A. G. Kaulukou
Supervisors—Waimea, Th. Brandt; Koloa, W. D. McBryde; Lihue, H. D. Wisharu; Kawaihau, J. F. Betencourt; Hanalei, A. Menefoglio.

FEDERAL OFFICIALS.

DEPARTMENT OF JUSTICE. U. S. DISTRICT COURT.

Hon. H. W. Vaughn } Judges U. S.
J. B. Poindexter } Dist. Court
S. C. Huber.....U. S. Attorney
J. J. Banks.....Asst. U. S. Attorney
J. J. Smiddy.....U. S. Marshal
O. E. Heine.....Office Dep. U. S. Marshal

C. J. Laval.....
.....Asst. Office Dep. U. S. Marshal
A. E. Harris.....Clerk
Wm. L. Rosa.....Deputy Clerk
Geo. S. Curry, F. J. H. Schnack.....
.....U. S. Commissioners
H. L. Grace.....Referee in Bankruptcy
J. A. M. Osorio.....U. S. Comsnr., Hilo
R. T. Forrest.....Referee, Hilo

C. D. Lufkin.....Referee, Kahului
 Regular Terms:—At Honolulu on the
 second Monday in April and October.
 Special Terms:—May be held at such
 times and places in the district as
 the Judge may deem expedient.
 Misses A. L. Winchester, Margaret
 Rawley.....Clerks, U. S. Attorney
 H. F. Neitert....U. S. Court Reporter
 Mrs. Sara Holland—Secretary to U.
 S. District Judges.
 U. S. Jury Commissioners—A. E. Har-
 ris, W. H. Smith.

TREASURY DEPARTMENT. CUSTOMS DIVISION.

Malcolm A. Franklin.....Collector
 Raymer Sharp—Special Deputy Col-
 lector and Chief Examiner.
 A. B. Ingalls.....Examiner and Gauger
 John W. Short..Chief Liquidating Clerk
 W. D. Wilder....Dep. Col. and Cashier
 F. L. Beringer, R. H. Bemrose, E. H.
 Boyen, C. J. Cooper, R. Frieders-
 dorff.....Examiners
 J. B. Gibson, P. M. Naluai, M. J.
 Scanlan, Jas. I. Arcia.....
Deputy Collector and Clk.
 E. E. Miller, M. G. Johnston, Geo. W.
 Lucas, R. K. Brown, E. S. Mc-
 Grew.....Clerks
 E. D. Ferreira...Stenog. and Typewriter
 R. J. Taylor.....
Dep. Coll. and Insp. in Chge.
 C. A. Hills.....Clerk
 E. A. K. Williams.....Clerk
 John A. Akana.....Night Ins.
 D. C. Lindsay..Dep. Collector, Kahului
 W. V. Kolb.....Dep. Collector, Hilo
 E. Madden....Dep. Collector, Mahukona
 G. B. Leavitt....Dep. Collector, Koloa

INTERNAL REVENUE OFFICE.

Howard Hathaway.....Collector
 W. G. Ashley, Jr.....Chief Deputy
 Lee Sing.....Stamp Cashier
 E. K. Kekuwa.....Asst. Stamp Cashier
 Beatrice M. Sorenson, Minnie Rude-
 beck, Adelaide Laval, Margaret
 McCarthy.....Deputy Colls.
 F. S. Hishimoto.....Messenger
 F. C. Hapai.....Chief Field Deputy
 Clara C. Dodd, W. N. Hauna, J. S.
 Mackenzie.....Division Deputies
 August S. Costa (Hilo).....
Stamp and Div. Deputy
 A. P. Helbush (Hilo).....
Asst. Stamp and Div. Deputy

U. S. DEPARTMENT OF LABOR. IMMIGRATION SERVICE.

P. L. Halsey.....Inspector in Charge
 H. B. Brown...Act. Inspector in Charge
 Edwin Farmer, J. L. Milligan..Inspctrs.
 Chas. T. Howard, Hazel G. Cunning-
 ham.....Clerks
 Tomizo Katsunuma, C. Tajima.....
Japanese Interpreters
 Bee Kwong.....Chinese Interpreter
 Mrs. Y. Watanabe.....Matron

DEPARTMENT OF AGRICULTURE. U. S. WEATHER BUREAU.

L. H. Daingerfield.....Meteorologist
 Wm. W. Wyatt, Carl A. Reichelt..
Asst. Observers

U. S. Magnetic Station
 Frank Neumann.....Observer

HAWAII EXPERIMENT STATION.

J. M. Westgate...Agronomist in Charge
 J. E. Higgins.....Horticulturist
 M. O. Johnson.....Chemist
 C. W. Carpenter.....Plant Pathologist
 F. G. Krauss....Supt. Extension Work
 R. A. Goff.....Asst. Agronomist
 In Charge Glenwood Substation.
 H. L. Chung.....Asst. Chemist
 C. A. Sahr.....Asst. Agronomist
 J. H. Cowan.....Asst. Horticulturist
 L. M. Ross.....Executive Clerk
 E. J. Mooklar.....Asst. in Food Work

PUBLIC HEALTH, UNITED STATES SERVICE.

F. E. Trotter, Surgeon, U. S. P. H. S.,
 Chief Quarantine Officer.
 L. E. Hooper, P. S. Surgeon, U. S. P.
 H. S.
 A. N. Sinclair, Acting Assistant Sur-
 geon U. S. P. H. S.
 W. F. James, Asst. Surg., U. S. P. H. S.
 G. I. Van Ness, Pharmacist U.S.P.H.S.
 Emma F. Smith, Med. Insp., U.S.P.H.S.
 L. L. Sexton, Act. Asst. Surgeon, U. S.
 P. H. S., Hilo, Hawaii, T. H.
 Wm. Osmer, Act. Asst. Surgeon, U. S.
 P. H. S., Kahului, Maui, T. H.
 Franklin Burt, Act. Asst. Surg., U. S.
 P. H. S., Lahaina, Maui, T. H.
 A. H. Waterhouse, Act. Asst. Surgeon,
 U.S.P.H.S., Koloa, Kauai, T. H.
 B. D. Bond, Act. Asst. Surgeon, U. S. P.
 H. S., Mahukona, Hawaii, T. H.

WAR DEPARTMENT. U. S. ARMY.

Engineer Department.

Colonel R. R. Raymond, Corps of En-
 gineers, U. S. Army, in charge of
 works for defense of Honolulu and
 Pearl Harbor, and of the Improve-
 ment of Honolulu, Hilo and Kahului
 Harbor.
 Capt. S. H. Ware, Corps of Engrs.,
 Asst. to Dist. Engr. Officer.
 S. F. Burbank, Richard Quinn, Assist-
 ant Engineers.
 A. K. Shepard, Chief Clerk.
 F. M. Bechtel, S. M. Temple, Geo. K.
 Mills, Daniel S. Pahu, Clerks.
 A. V. Hayes, Receiver of Materials.

NAVY DEPARTMENT

OFFICERS ATTACHED TO 14th NAVAL DISTRICT.

Rear Admiral Robert M. Doyle, Commandant.

Ensign A. P. Haynes, Aid to Comdt.

Lieut.-Comdr. W. H. Stroud, Captain of the Yard.

Boatsw. Edward Burnett, U.S.N., Yard Boatswain.

Comdr. Geo. A. McKay, U.S.N., Public Works Officer; Lieut. R. L. Martin, U.S.N., Ensign R. J. Strasser, U.S.N.R.F., Assts.

Lieut. D. Corey, U.S.N., Surgeon.

Lt.-Comdr R. E. Carney, U.S.N. (ret.), Engr. Officer; Lieut. (jg) Geo. H. Paul, U.S.N.R.F., Ensign J. S. Philbrick, U.S.N.R.F., Ensign Frank H. Wight, U.S.N.R.F., Assts.

Lieut. E. L. Kempton, U.S.N., Construction Officer; Carpenter Martin R. Aden, U.S.N., Asst.

Lieut. C. H. Breyer, U.S.N., Supply Officer.

Carpenter R. F. Harrington, U.S.N., in Charge Coaling Plant.

Lieut.-Comdr. A. A. Garcelon, U.S.N., Commanding Officer, Receiving Ship at Pearl Harbor; Lieut. (jg) W. H. Abbey, U.S.N., Supply Officer;

Lieut. O. J. Phillips, U.S.N., Disbursing and Acctg. Officer; Ensign W. A. Anderson, U.S.N.R.F., Actg. Pay Clerk C. S. Baker, U.S.N., Pay Clerk J. W. Caum, U.S.N., Assts.

Capt. T. A. Berryhill, U.S.N., Commanding Officer Hospital; Lieut. T. C. Anderson, U.S.N., Lieut. H. B. Lehmborg, U.S.N., Asst. Surgeons.

Lieut. (jg) A. E. Nichols, U.S.N.R.F., Dentist.

Pharmacist J. M. Feder, U.S.N., Pharmacist.

Lieut. (jg) John A. Balch, U.S.N.R.F., District Communication Supt.; Gunner (R.) W. R. Gompf, U.S.N.R.F., in Charge of Naval Communication Office; Ensign W. A. Aldrich, U.S.N.R.F., Ensign C. E. Bence, U.S.N.R.F., Nav. Com. Office.

Gunner E. E. Blalock, U.S.N., High Power Radio Station.

Lieut. S. A. Crosby, U.S.N.R.F., Honolulu Naval Station.

Lieut. William Todd, U.S.N.R.F., Ensign C. M. Herbert, U.S.N.R.F., Aids for Information.

Lieut. (jg) John T. Diggs, U.S.N.R.F. (Hermes).

Lieut. (jg) L. H. Rassler, U.S.N. (Navajo).

Lieuts. John Eberwine, U.S.N. (Monterey) W. P. Blake, U.S.N.R.F.; R. Norman, U.S.N.R.F.; Ensigns H. E. Skwer, U.S.N.R.F.; E. C. Hodges, U.S.N.R.F.; E. I. Parker, U.S.N.R.F.; F. J. Lanham, U.S.N.; H. F. Newton, U.S.N.

OFFICE OF NAVAL CENSOR, HONOLULU

Commodore D. H. Mahan, U. S. Navy, retired.

Lieut. (j.g.) R. G. W. Cooper, USNR.

OFFICERS U. S. MARINE CORPS.

Lieut.-Col. John F. Beaumont U.S.M.C., Comdg. Officer Marines.

Capt. W. G. Gunn, U.S.M.C.

Capt. J. S. Snow, U.S.M.C.

1st Lieut. Thos. H. Raymond, U.S.M.C.

Capt. C. A. Smith, U.S.M.C.

1st Lieut. H. Gund, U.S.M.C.

Capt. Hans O. Martin, U.S.M.C.

1st Lieut. N. R. Jensen, U.S.M.C.

Capt. T. A. Tighe, U.S.M.C.

2nd Lieut. C. F. Morrison, U.S.M.C.

LIGHT-HOUSE ESTABLISHMENT.

Arthur E. Arledge, Superintendent 19th Lighthouse District, in charge of all light-house affairs in the Hawaiian Islands.

Fredk. A. Edgecomb.....Asst. Supt.

J. A. Shadinger.....Chief Clerk

Thos. Wood W. A. Inman.....Clerks

K. Kalawaia.....

.....Keeper, Light-House Depot

Light-House Tender Columbine.

F. T. Warriner, Captain.

R. G. Alenwed, First Officer.

I. H. Jensen, Second Officer.

A. P. Lederer, Chief Engineer.

U. S. ARMY.

HEADQUARTERS HAWAIIAN DEPT.
Honolulu, H. T.

Brig.-Gen. John W. Heard, U.S.A., Commanding.

1st Lieut. James A. Gibb, 1st Haw. Infy., Aide-de-Camp.

Personal Staff.

1st Lieut. Cornell S. Franklin, 1st Haw. Infy., Aide-de-Camp.

Department Staff.

Chief of Staff: Maj. Edward F. Witsell, Sig. Corps, Acting.

Dept. Adjt.: Maj. Albert C. Bellamy, A. G. Dept., Acting.

Dept. Inspector: Maj. Edward C. Wallington, Insp.-Genl.

Judge Advocate: Maj. Ingram M. Stainback, J.A.G. Dept.

Dept. Quartermaster: Col. Gonzalez S. Bingham, Q. M. Corps.

Motor Transport Officer: Maj. Harry E. Murray, M. T. Corps.

Dept. Surgeon: Col. William P. Kendall, Med. Corps.

Dept. Engr.: Col. Robert R. Raymond, Corps of Engrs.

Dept. Ordnance Officer: Col. Kenneth Morton, Ord. Dept.

Dept. Signal Officer: Capt. Harry E. Jordan, Sig. Corps.

Militia Officer: Maj. James D. Dougherty, Q. M. Corps.

Air Service Officer: Maj. Hugh J. Knerr, J. M. A., S. C.

Additional Staff.

Lt.-Col. Charles B. Cooper, Med. Corps,
Sanitary Inspector, Med. Supply and
Disb. Off.

Lt.-Col. Fred. B. Buckley, Q.M.C., Asst.
to Dept. Q. M.

Maj. Terry P. Bull, Dent. Corps, Dental
Surgeon, Dept. Hdqrs.

Maj. John A. Baird, Coast Arty., Dept.
Intelligence Officer.

Maj. Richard Bolton, Q.M.C., Asst. to
Dept. Q. M.

Maj. William A. MacNicholl, Q.M.C.,
Asst. to Dept. Q. M.

Maj. Harry G. Field, Q.M.C., Selective
Draft Officer.

Maj. Frank B. Baldwin, Med. Corps, At-
tending Surgeon, Dept. Hdqrs.

Capt. Paul S. Roper, Coast Arty., Asst.
to Dept. Adjt.

Capt. William H. Griffith, C. of E.,
Asst. to Dept. Engineer.

Capt. Herbert E. Wescott, Q.M.C., Asst.
to Dept. Q. M.

Capt. Lloyd E. Case, Vet. Corps, Asst.
to Dept. Surgeon.

Capt. William G. Allen, Q.M.C., Asst.
to Constructing Q. M.

Capt. Philip E. Spalding, 1st Haw.
Infy., Asst. to Chief of Staff.

Capt. Samuel H. Ware, C. of E., Asst.
to District Engineer.

Capt. Wilbur C. Woodward, Q.M.C.,
Asst. to Dept. Q. M.

Capt. Leslie C. Thompson, Q.M.C.,
Asst. to Dept. Q. M.

1st Lt. Arthur S. Heyward, 1st Haw.
Infy., Asst. to Chief of Staff.

1st Lieut. Edgar Anderson, A. G. Dept.,
War Risk Insurance Officer.

1st Lieut. James A. Gibb, 1st Haw.
Infy., Personnel Adjutant, Com-
manding Hdqrs. Detachment, Dept.
Casual Officer and Inspr. of Small
Arms Practice.

1st Lieut. Reynold B. McGrew, Q.M.C.,
Asst. to Dept. Q. M.

Posts in the Hawaiian Department.

Department Hospital, Honolulu, H. T.
Lt.-Col. Frank L. Putman, Med.
Corps, Commanding.

Hawaii Arsenal, Honolulu, H. T. Col.
Kenneth Morton, Ord. Dept., Comdg.

Ford's Island, Oahu, H. T. Maj. Hugh
J. Knerr, J. M. A., S. C., Comdg.

Fort Shafter, H. T. Col. William R.
Riley, 1st Haw. Infy., Comdg.

Schofield Barracks, H. T. Brig.-Gen.
John W. Heard, U. S. Army, Comdg.

Coast Defenses of Oahu, Fort Kameha-
meha, H. T. (Forts Armstrong, De
Russy, Kamehameha and Ruger.)
Col. John W. C. Abbott, Coast Arty.,
Commanding.

THE HAWAIIAN ANNUAL

The recognized reference book of Hawaii, issued each De-
cember for the following year, devoted to Statistics, Re-
search and general information relating to Hawaii. Back
numbers for their special research articles are in constant
demand. While full files from 1875 are now but rarely ob-
tainable, sets from 1884 can be supplied to order on short
notice.

Thos. G. Thrum, Publisher, or Thrum's, Ltd., Honolulu.
Agent.

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